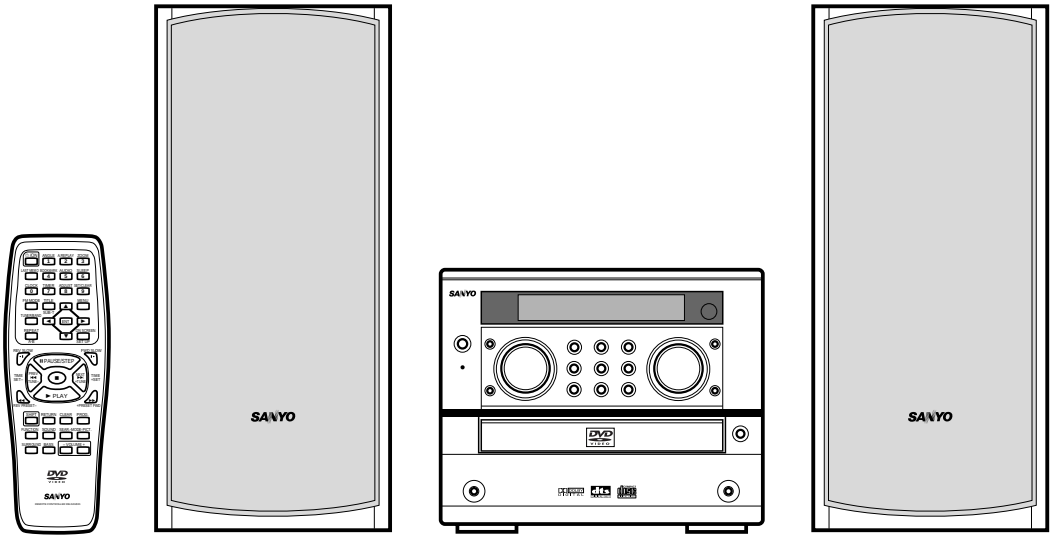
SANYO

FILE NO.

Service Manual

DVD/VCD Personal Theater System

DC-DVD888 (SS)
DC-DAV821 (KR)



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PRODUCT CODE No.
129 603 00 (KR)
129 603 07 (SS)

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REFERENCE No. SM5810184

SPECIFICATIONS

Tuner
Reception frequency:
FM: 87.5 - 108 MHz
AM: 522 - 1710 kHz (9 kHz step)
520 - 1710 kHz (10 kHz step)

DVD/CD player
Type:
DVD/CD player
Playback standard:
NTSC or PAL
Laser:
Semiconductor laser, wavelength: 650 nm
Laser output (Continuous wave max.):
1 mW (DVD)
0.5 mW (CD)
Frequency range (digital audio):
4 Hz to 44 kHz (DVD fs: 96 kHz)
Signal to noise ratio:
More than 105 dB
Harmonic distortion (digital audio):
0.003 %
Wow and flutter:
Below measurable level

General
Output power:
Total 15W x 2 (at 4 ohms, 10% distortion)
Inputs
AUX IN1 : 550mV/50k ohms
AUX IN2 : 550mV/50k ohms
Outputs
SPEAKERS:
4 ohms/6 ohms
PHONES:
8 - 32 ohms
SUB WOOFER OUT:
1.0 V rms
DIGITAL OUT:
Optical
VIDEO OUT:
1.0 Vp-p (75)
S-VIDEO OUT:
Y: 1.0 Vp-p (75) NTSC, 1.0 Vp-p (75) PAL
C: 0.236 Vp-p (75) NTSC, 0.3 Vp-p (75) PAL

Power requirements:
AC 220 V, 60 Hz(KR)
AC 110 - 120/220 - 240 V, 50/60 Hz(SS)
Power consumption:
60 W
Dimensions:
190(W) x 157(H) x 335(D) mm
Weight:
4.5 kg

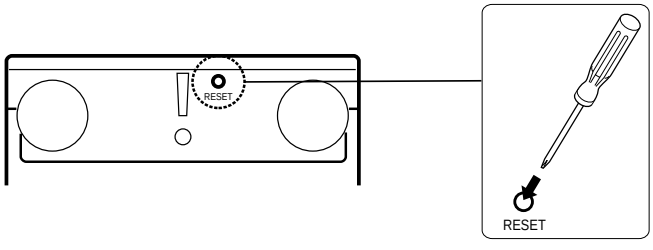
Speaker systems
Type:
3 way acoustic bass tube
Unit used:
Woofer: 10 cm cone type
Mid range: 10 cm cone type
Tweeter: piezoelectric
Maximum power-handling capacity:
Main: 10 W (peak), Woofer: 30W(peak)
Nominal impedance:
Main: 4 ohms, Woofer: 6 ohms
Dimensions:
150(W) x 335(H) x 265(D) mm
Weight:
4.1 kg (per speaker)

Specifications subject to change without notice.

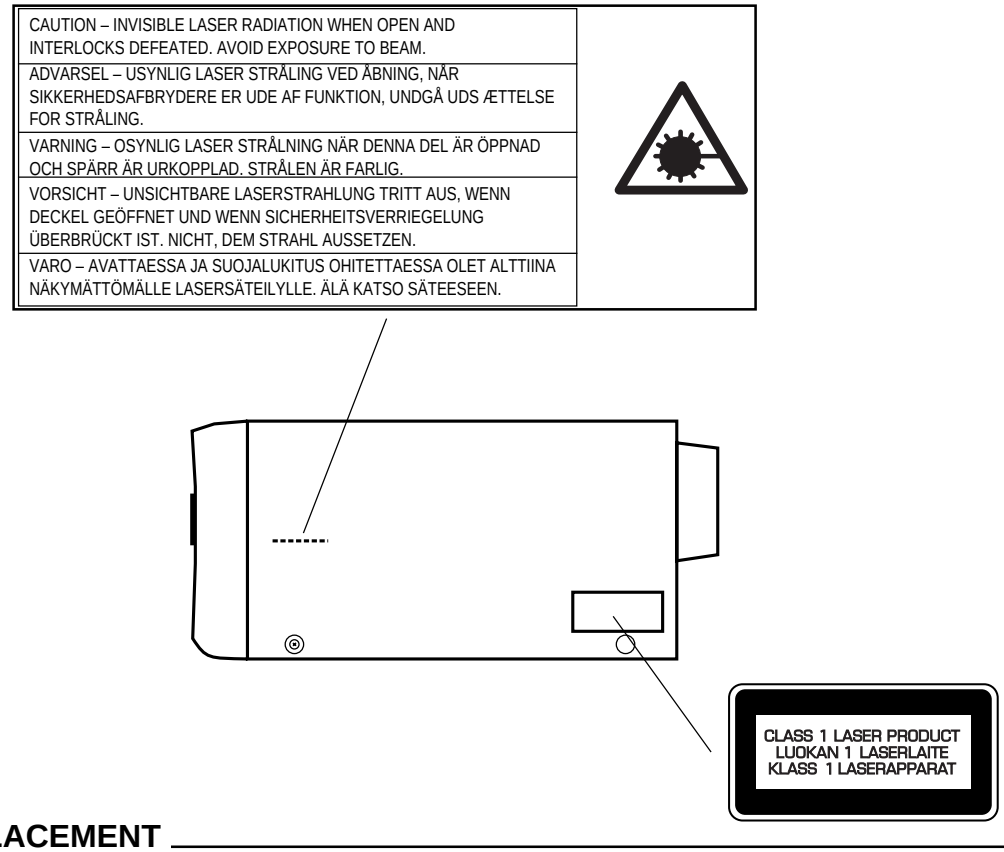
WHAT TO DO IF

- If the operation of the unit or display is not normal, or you wish to clear the contents of the memory.

1. Disconnect the power cord from AC outlet.
2. Press the **RESET** button for at least **20** seconds.
3. Connect the power cord.
4. Press the **POWER** button to turn the power on.



LASER BEAM SAFETY PRECAUTION


CAUTION – INVISIBLE LASER RADIATION WHEN OPEN AND INTERLOCKS DEFEATED. AVOID EXPOSURE TO BEAM.
ADVARSEL – USYNLIG LASER STRÅLING VED ÅBNING, NÅR SIKKERHEDSAFBRYDERE ER UDE AF FUNKTION, UNDGÅ UDS ÆTTELSE FOR STRÅLING.
VARNING – OSYNLIG LASER STRÅLNING NÄR DENNA DEL ÄR ÖPPNAD OCH SPÄRR ÄR URKOPPLAD. STRÅLEN ÄR FARLIG.
VORSICHT – UNSICHTBARE LASERSTRAHLUNG TRITT AUS, WENN DECKEL GEÖFFNET UND WENN SICHERHEITSVERRIEGELUNG ÜBERBRÜCKT IST. NICHT, DEM STRAHL AUSSETZEN.
VARO – AVATTAESSA JA SUOJALUKITUS OHITETTAESSA OLET ALTTIINA NÄKYMÄTTÖMÄLLE LASERSÄTEILYLLE. ÄLÄ KATSO SÄTEESEEN.
CLASS 1 LASER PRODUCT
LUOKAN 1 LASERLAITE
KLASS 1 LASERAPPARAT

DVD MECHANISM REPLACEMENT

1.Cautionary instructions in handling the assy
(Safety instructions)
Optical pickup
The laser beam used in the pickup is classified as "class 2". Exposing your eyes or skin to the beam is harmful. Take care not to do so.

(Caution against static electricity and leakage voltage)
Ground securely the work tables, tools, fixtures, soldering irons (including those made of ceramic) and measuring instruments used in the production lines and inspection departments that handle loaders. The workers shall also be grounded.

(Cautionary instructions in handling)
Do not touch the object lens when handling a loader, or the lens will be stained, resulting in inadequate playability.
There is no power supply protection circuit provided for this product or adjustment/inspection device. Short-circuiting may lead to fire or damage.
Take care so as to protect from exposure to water, the entry of metallic pieces or dew condensation.
In particular, a strong magnet adjacent to the pickup will not only get inoperative but can damage the pickup if a small metallic piece, such as a screw or swarm, enters.
The loader edge can cause injury if inadvertently handled.
Do not touch a rotating disk, or injury may result.

This product is a precision device. Handle carefully.
A shock or dropping will cause misalignment or destruction. If it should occur, refer to clause 2.
This product is so designed as to endure an initial shock equivalent to a drop from a height of approx. 90 cm under the packed condition. After the initial shock, the resistivity will still remain at a level of 50 to 60 G, but the mechanical robustness will weaken.
Do not place in a dusty location.
The entry and deposition of dirt into or on the pickup lens or moving section will cause malfunction or degradation.

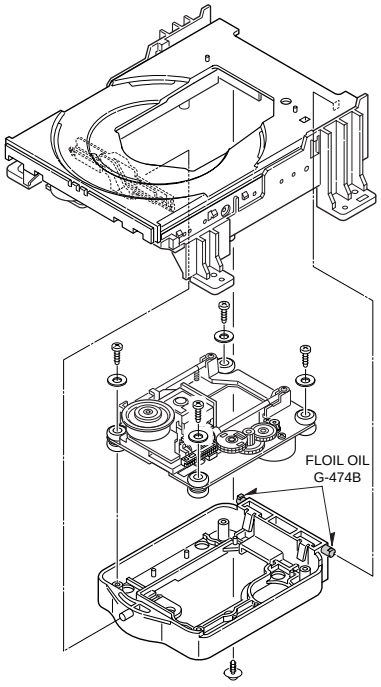
(Connectors)
Do not connect or disconnect while power is on.
Connecting or disconnecting signal wires or the main power cord when the power is on may destruct the unit or fixture.
When connecting, push all the way in securely.
An insufficient insertion may cause a bad contact, leading to an erroneous operation.
Do not connect or disconnect roughly by an excessively strong force, or a broken wire or bad contact may result.
Semiconductors are connected. Do not touch connector terminals directly.
If the worker is grounded, there is nothing to worry about static electricity, but the rust on the connector terminal surface caused by the touch may result in bad contact.

(Power source)
The power source need be good in quality (free from instantaneous interruptions or noises).
A low quality power source may well cause malfunction.

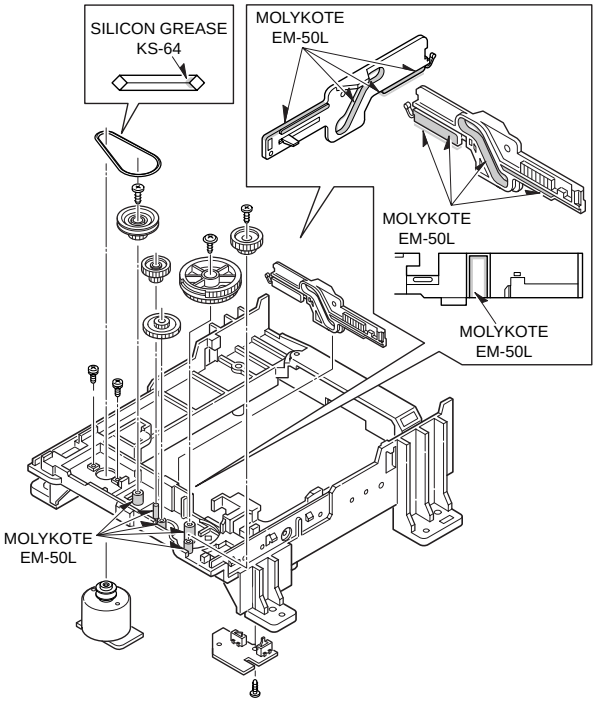
(Storage)
Do not place or store in a dusty place or a place where dew condensation is possible.
The entry and deposition of dirt or dust into or on the pickup lens or moving section will cause malfunction or degradation.
Also, dew condensation causes rust;the rust penetrate into the precision part of a pickup, causing malfunction, or degrading the optical quality of the internal lens and reflector, which also leads to malfunction.

MECHANISM REPLACEMENT

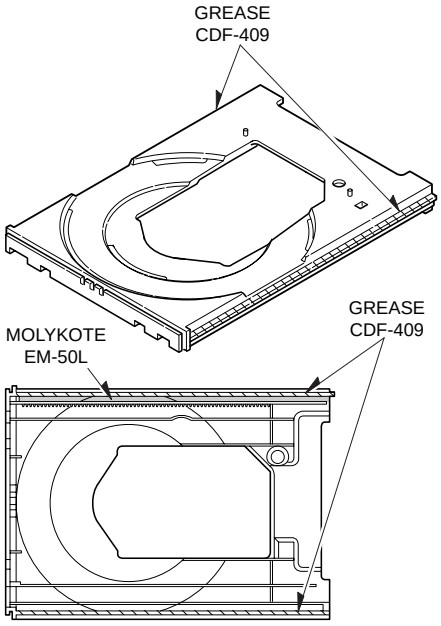
1. TRAY AND BASE MECHANISM PART



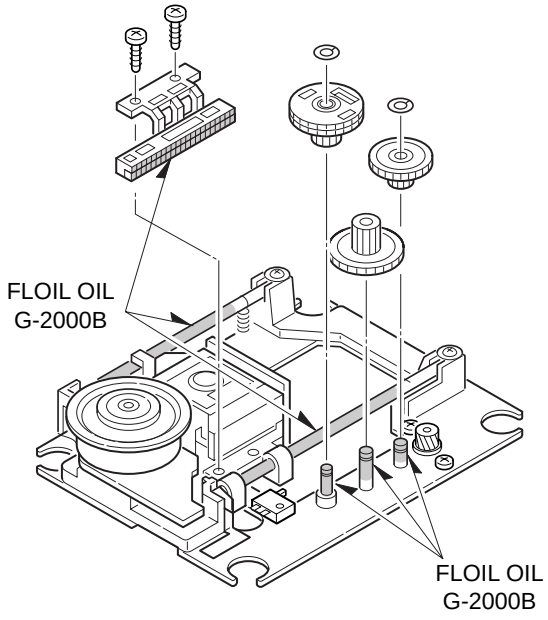
2. Base mechanism mounting PART



3. TRAY PART



4. BASE MECHANISM PART

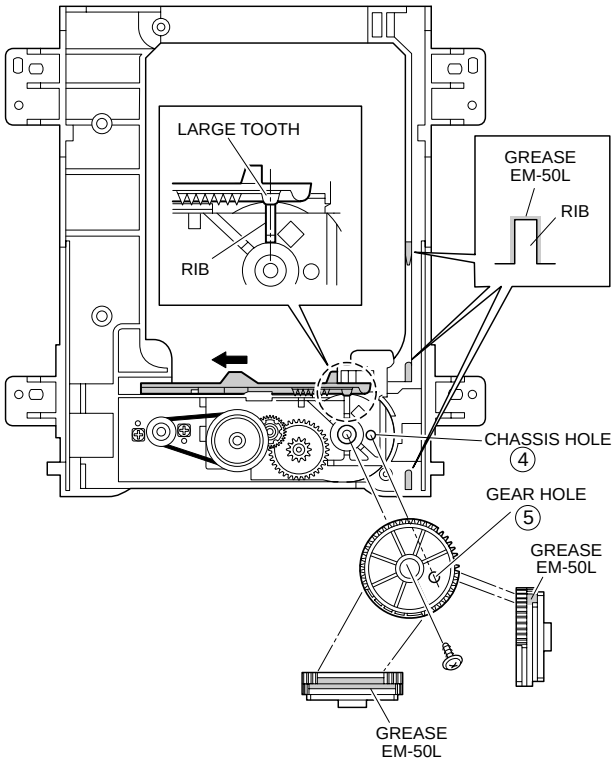


Do not remove the pick-up from base mechanism because of adjustment difficulty.

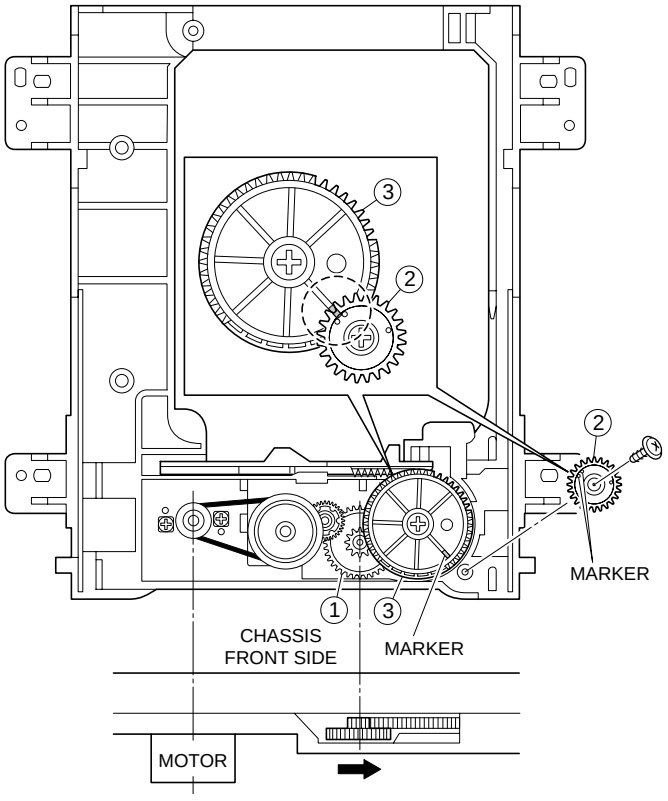
MECHANISM OPERATION

1.How to setting the tray.

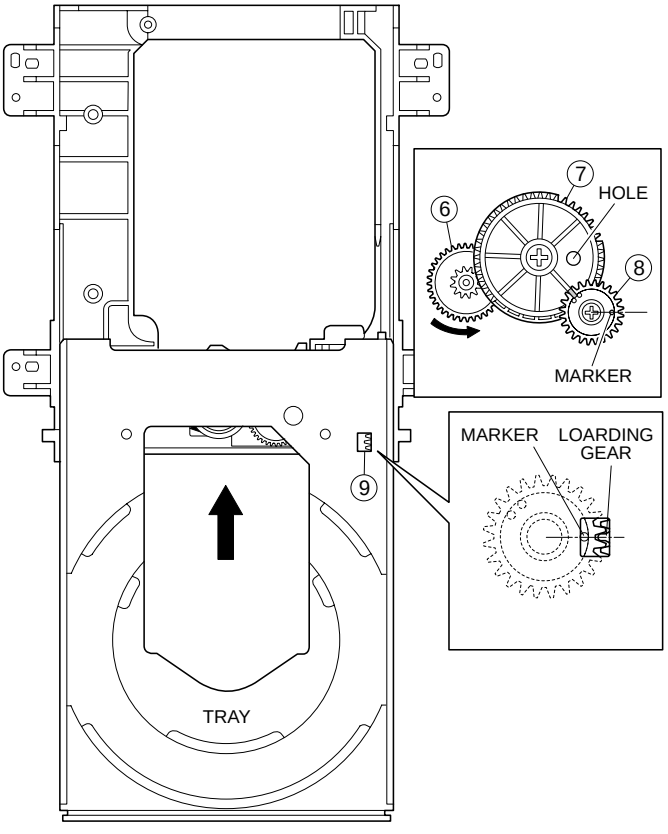
1. Move the SLIDE left side.
2. Match the Hole of GEAR ⑤ and Hole of CHASSIS ④ .



3. Match the mark of GEAR ② and mark of GEAR ③, and then install the BOSS.
4. Turn the GEAR ① counterclockwise, and then SLIDE move right side.
5. The GEAR ① move from side to side.



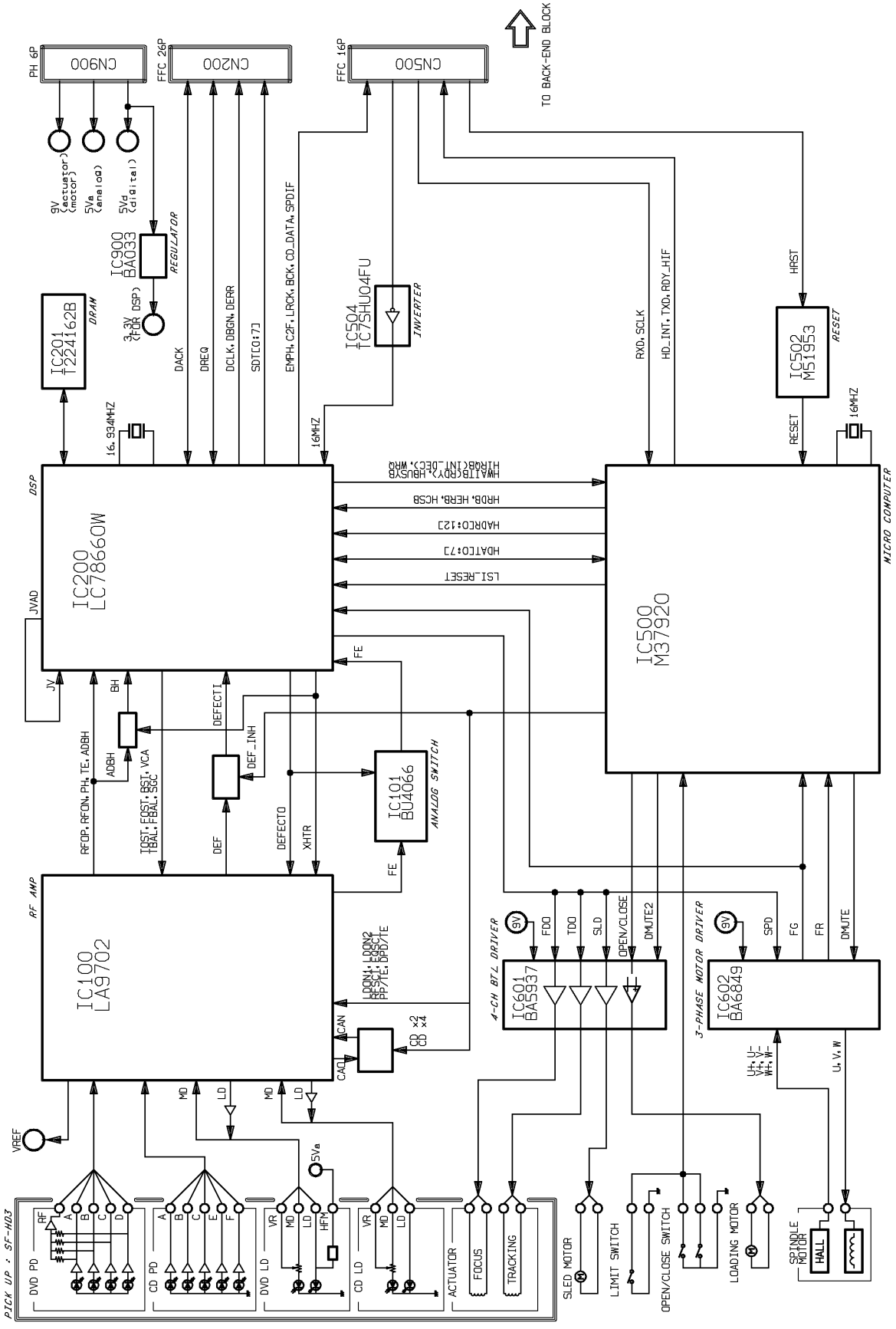
6. Match the hole of GEAR ⑦ and hole of chassis while turning GEAR ⑥ .
7. Match the mark of LOADING GEAR ⑧ and gear of TRAY where see horn hole ⑨ of tray.
8. Push a tray with the state that turned the entire surface of a tray into approximately 5 degrees the lower part slowly.



DVD P.W.BOARD OPERATION

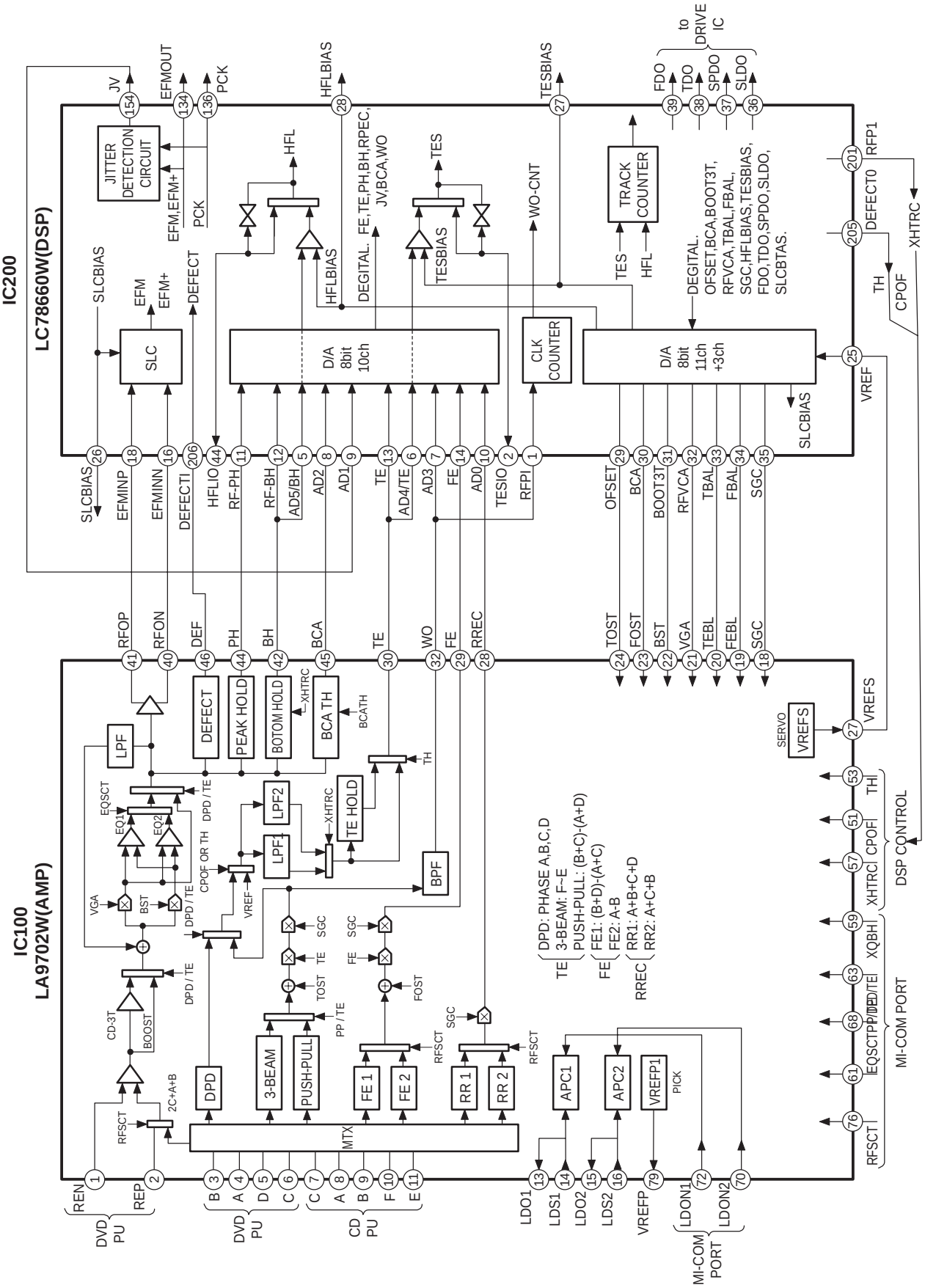
1. General operation diagram (This is a basic general operation diagram)

The circuit mounted on the Loader part (Frontend Board) is configured as shown , which is divided into following blocks according to main ICs.



DVD P.W.BOARD OPERATION

2. Circuit configuration inside IC100(LA9702W) and IC200(LC78660W). (This is a basic circuit configuration)



DVD P.W.BOARD OPERATION

3. Table of monitor signals (This is a basic table of monitor signals)

A. Reference table for waveform are listed as below.

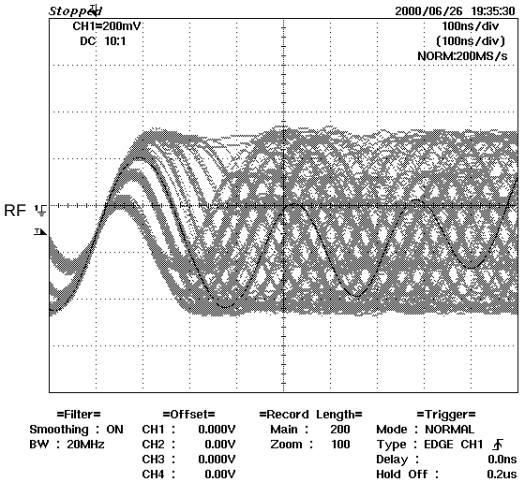
Name	TP label	IC, CN Location	Pin no.	Description
FE	TP101	IC100	25	Focus Error Signal(Analog)
TE	TP102	IC100	30	Trk Error Signal(Analog)
RFN	TP104	IC100	40	RF Signal(Analog)
RFP	TP105	IC100	41	RF Signal(Analog)
BH	TP106	IC100	42	Bottom Hold Signal(Analog)
PH	TP107	IC100	44	Peak Hold Signal(Analog)
DEF		IC100	46	High : When passing defection
LD1	TP122	Q1004	E	DVD Laser Power Supply(Analog)
LD2	TP124	Q1005	E	CD Laser Power Supply(analog)
TESI0	TP201	IC200	2	TES(Track crossing signal)
SLICBIAS	TP202	IC200	26	EFM Slice Bias(Analog)
HFLBIAS	TP204	IC200	28	MIRROR Slice Bias(Analog)
HFLIO	TP206	IC200	44	MIRROR signal
FSEQ	TP211	IC200	84	High : Sync synchronised LO : Async
PCK	TP224	IC200	136	Clock generated by PLL
EFMOUT	TP226	IC200	134	RF Digitized signal
DEFECT0	TP220	IC200	201	High : When passing defection
TOST	TP246	IC200	29	Trk Offset Control(analog)
FOST	TP247	IC200	30	Focus Offset Control(analog)
BOOST3T	TP248	IC200	31	RF EQ Control(analog)
RFVCA	TP249	IC200	32	RF Voltage Control(analog)
TBAL	TP250	IC200	33	Trk Balance Control(analog)
FBAL	TP251	IC200	34	Fcs Balance Control(analog)
SGC	TP252	IC200	35	Signal Gain Control(anlog)
HFBUSYB	TP254	IC200	50	Function Busy Low during jump, adjustment so on.
JVAO	TP257	IC200	154	Jitters value(analog)
TD	TP601	IC200	38	Trk Driver out(analog)
FD	TP602	IC200	39	Focus Driver out(analog)
SPD-FG	TP604	IC602	24	Spindle FG signal
U, V, W		IC602	7, 4, 2	Spindle Coil Voltage
U+/-, V+/-, W+/-		IC602	9, 10, 11 12, 13, 14	Spindle Hall Voltage
SLD	TP607	IC200	36	Sled Driver out(analog)
SPD	TP608	IC200	37	Spindle Driver out(analog)
OPEN	------	IC601	16	TRAY control signal
CLOSE	------	IC601	15	TRAY control signal
OPEN-SW	------	CN600	5	TRAY Limit SW
CLOSE-SW	------	CN600	3	TRAY Limit SW
HRST	------	CN500	2	RESET from Backend
RESET	------	IC502	6	RESET to Micom
VREF	------	IC100	27, 79	Reference Voltage(2.5V)

DVD P.W.BOARD OPERATION(SIGNAL)
(This is a basic signal.)

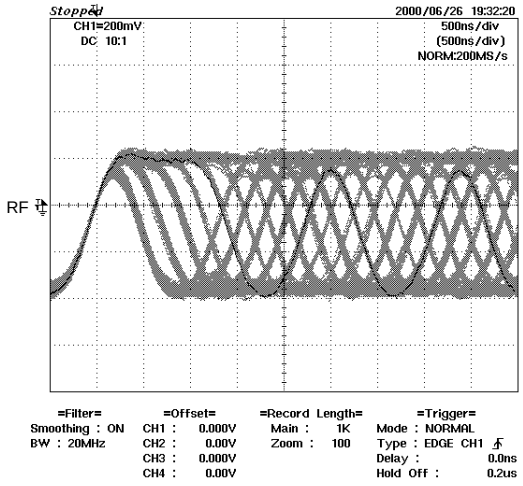
1. RF and Defection Signal

Each signal shown refers to WIRING ,SCHEMATIC DIAGRAM and Table of monitor signals.

A. RF Signal during play mode.

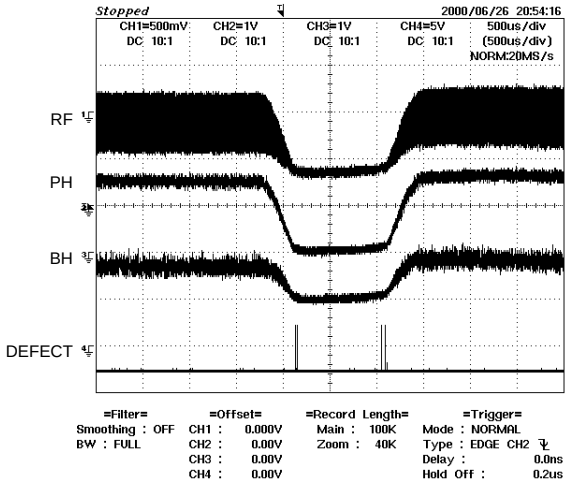

Stopped
2000/06/26 19:35:30
CH1=200mV
DC 10:1
100ns/div
(100ns/div)
NORM:200MS/s
RF
=Filter= =Offset= =Record Length= =Trigger=
Smoothing : ON CH1 : 0.000V Main : 200 Mode : NORMAL
BW : 20MHz CH2 : 0.00V Zoom : 100 Type : EDGE CH1
CH3 : 0.000V Delay : 0.0ns
CH4 : 0.00V Hold Off : 0.2us

RF of DVD disc

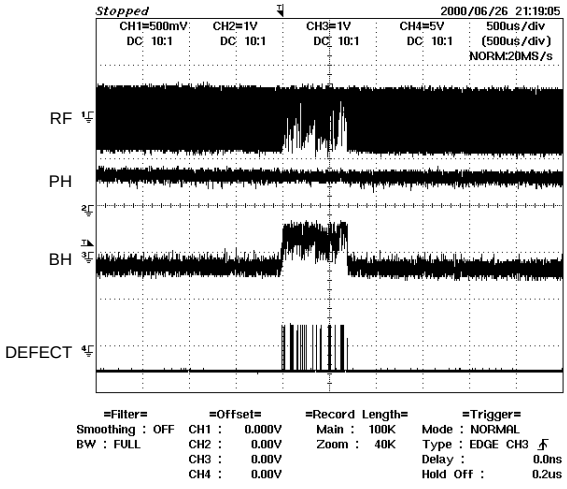

Stopped
2000/06/26 19:32:20
CH1=200mV
DC 10:1
500ns/div
(500ns/div)
NORM:200MS/s
RF
=Filter= =Offset= =Record Length= =Trigger=
Smoothing : ON CH1 : 0.000V Main : 1K Mode : NORMAL
BW : 20MHz CH2 : 0.00V Zoom : 100 Type : EDGE CH1
CH3 : 0.000V Delay : 0.0ns
CH4 : 0.00V Hold Off : 0.2us

RF of CD disc

B. Defection Signal (Detection of level down signal)


Stopped
2000/06/26 20:54:16
CH1=500mV CH2=1V CH3=1V CH4=5V
DC 10:1 DC 10:1 DC 10:1 DC 10:1
500us/div
(500us/div)
NORM:20MS/s
RF
PH
BH
DEFECT
=Filter= =Offset= =Record Length= =Trigger=
Smoothing : OFF CH1 : 0.000V Main : 100K Mode : NORMAL
BW : FULL CH2 : 0.00V Zoom : 40K Type : EDGE CH2
CH3 : 0.00V Delay : 0.0ns
CH4 : 0.00V Hold Off : 0.2us

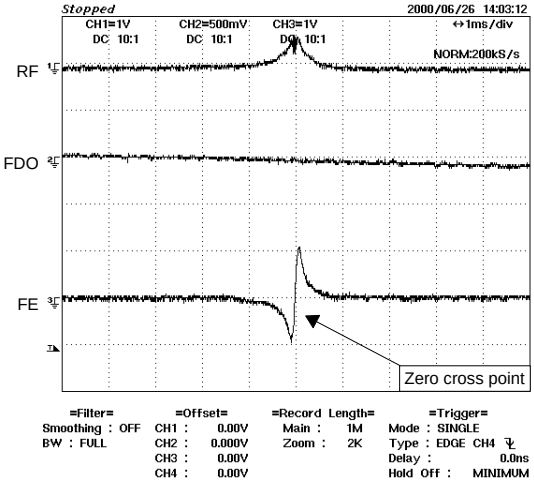
Scratched defect


Stopped
2000/06/26 21:19:05
CH1=500mV CH2=1V CH3=1V CH4=5V
DC 10:1 DC 10:1 DC 10:1 DC 10:1
500us/div
(500us/div)
NORM:20MS/s
RF
PH
BH
DEFECT
=Filter= =Offset= =Record Length= =Trigger=
Smoothing : OFF CH1 : 0.000V Main : 100K Mode : NORMAL
BW : FULL CH2 : 0.00V Zoom : 40K Type : EDGE CH3
CH3 : 0.00V Delay : 0.0ns
CH4 : 0.00V Hold Off : 0.2us

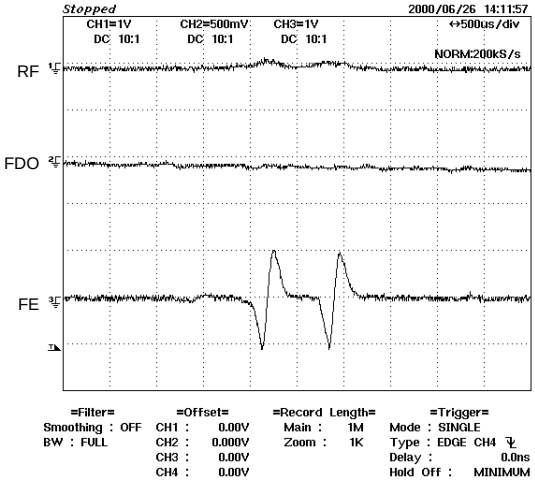
Interruption defect

2. Servo and Tray Control

A. S-Curve signal by Focus search

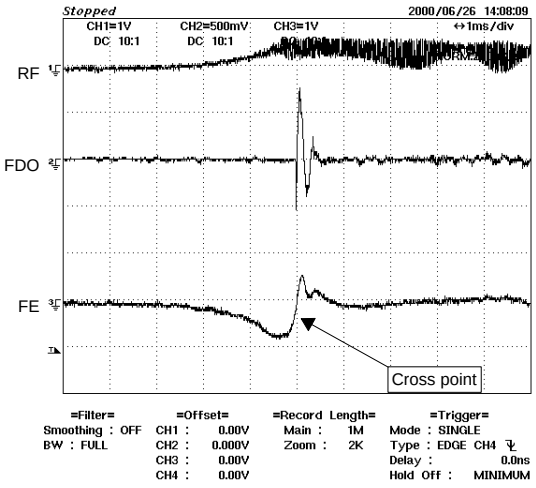

Stopped
2000/06/26 14:03:12
CH1=1V CH2=500mV CH3=1V
DC 10:1 DC 10:1 DC 10:1
↔1ms/div
NORM:200kS/s
RF
FDO
FE
Zero cross point
=Filter= =Offset= =Record Length= =Trigger=
Smoothing : OFF CH1 : 0.00V Main : 1M Mode : SINGLE
BW : FULL CH2 : 0.000V Zoom : 2K Type : EDGE CH4
CH3 : 0.00V Delay : 0.0ns
CH4 : 0.00V Hold Off : MINIMUM

S-Curve of DVD Single Layed disc

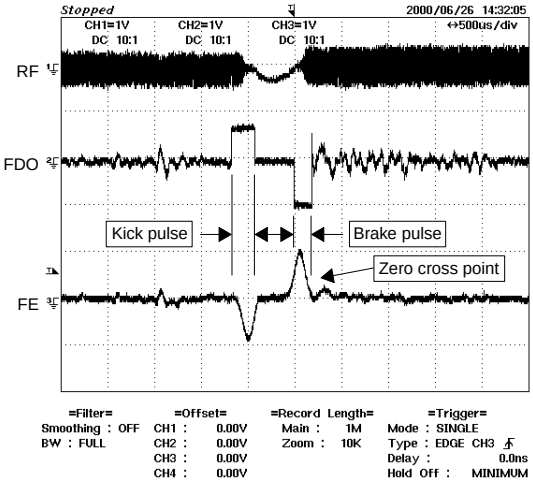

Stopped
2000/06/26 14:11:57
CH1=1V CH2=500mV CH3=1V
DC 10:1 DC 10:1 DC 10:1
↔500us/div
NORM:200kS/s
RF
FDO
FE
=Filter= =Offset= =Record Length= =Trigger=
Smoothing : OFF CH1 : 0.00V Main : 1M Mode : SINGLE
BW : FULL CH2 : 0.000V Zoom : 1K Type : EDGE CH4
CH3 : 0.00V Delay : 0.0ns
CH4 : 0.00V Hold Off : MINIMUM

S-Curve of DVD Dual Layed disc

B. Focus In and Focus Jump



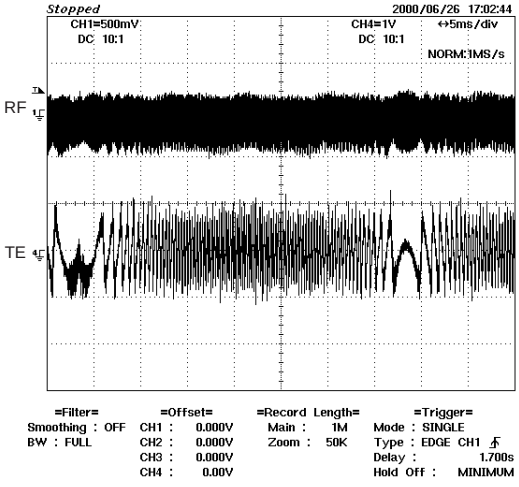
Focus In



Focus Jump

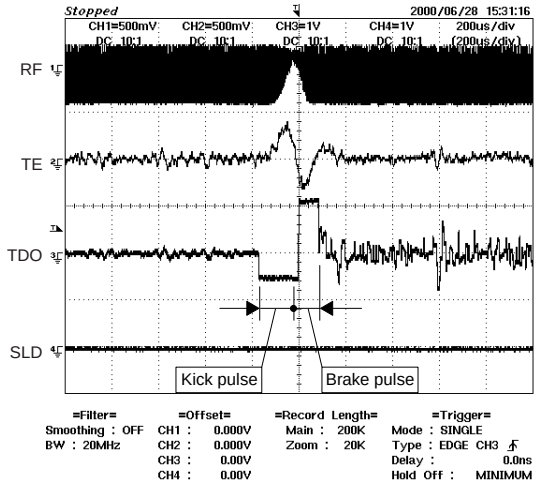
C. Tracking Servo

a. TE (Tracking Error) Signal.

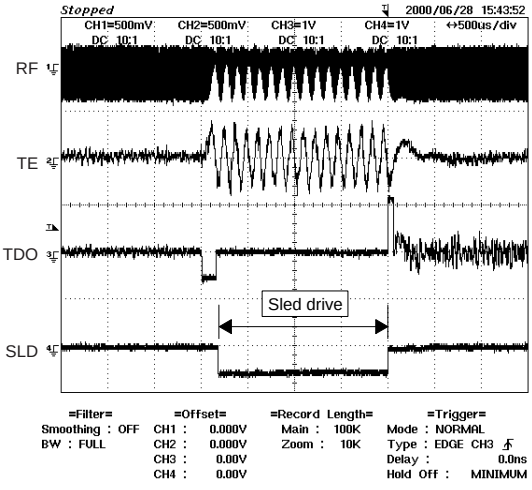


TE Curve

b. Track Jump Signal

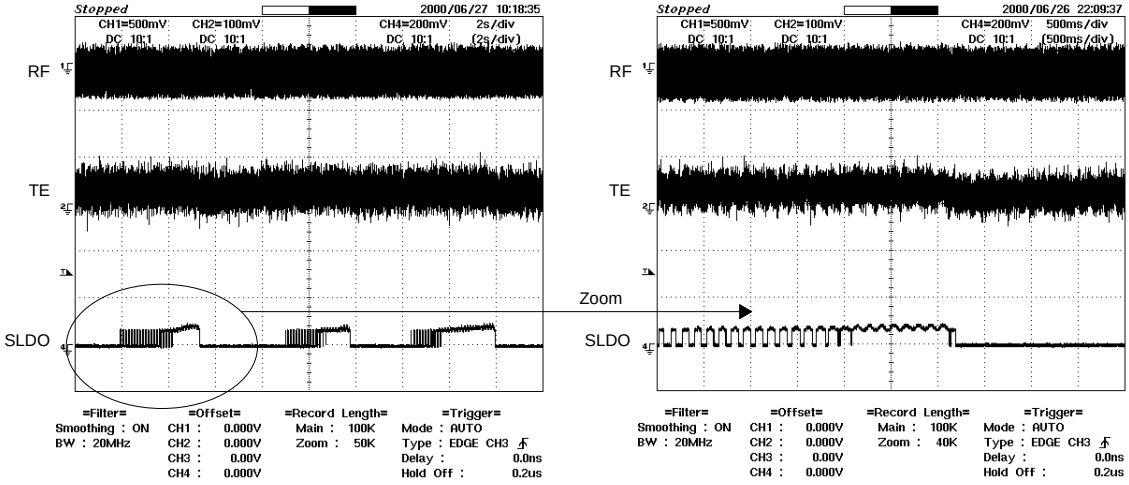


One Track Jump

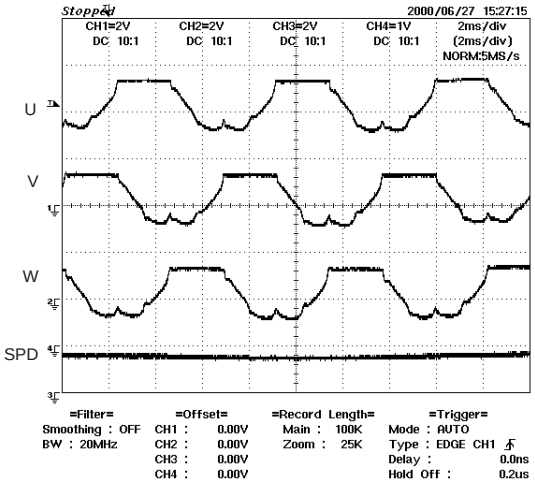


16 Track Jump

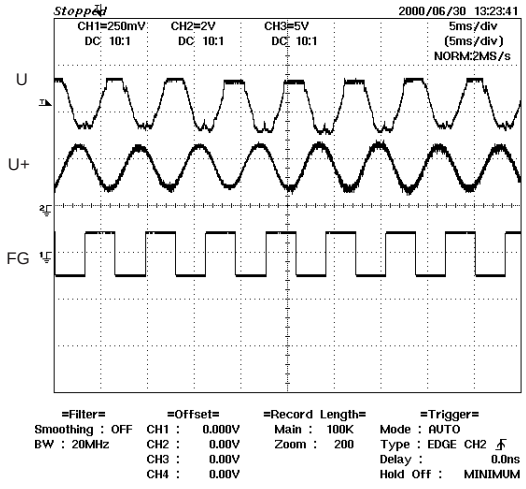
D. Seld Servo (Sled motor drive signal)


Stopped
2000/06/27 10:18:35
CH1=500mV DC 10:1
CH2=100mV DC 10:1
CH4=200mV DC 10:1
2s/div (2s/div)
RF
TE
SLDO
=Filter= Smoothing : ON BW : 20MHz
=Offset= CH1 : 0.000V CH2 : 0.000V CH3 : 0.00V CH4 : 0.000V
=Record Length= Main : 100K Zoom : 50K
=Trigger= Mode : AUTO Type : EDGE CH3 Delay : 0.0ns Hold Off : 0.2us
Zoom
Stopped
2000/06/26 22:09:37
CH1=500mV DC 10:1
CH2=100mV DC 10:1
CH4=200mV DC 10:1
500ms/div (500ms/div)
RF
TE
SLDO
=Filter= Smoothing : ON BW : 20MHz
=Offset= CH1 : 0.000V CH2 : 0.000V CH3 : 0.00V CH4 : 0.000V
=Record Length= Main : 100K Zoom : 40K
=Trigger= Mode : AUTO Type : EDGE CH3 Delay : 0.0ns Hold Off : 0.2us

E. Spindle Servo (Spindle motor drive signal)

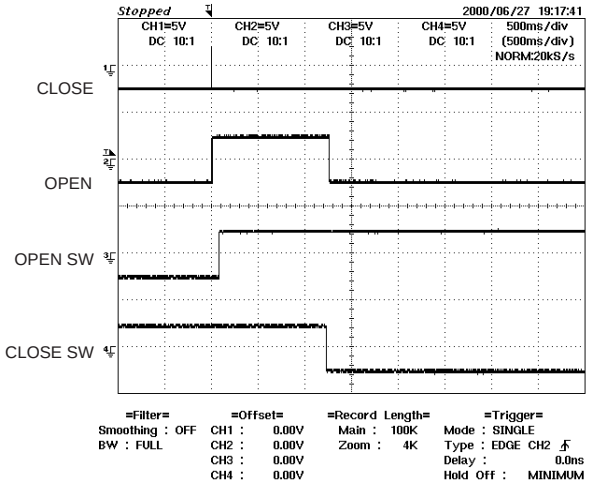

Stopped
2000/06/27 15:27:15
CH1=2V DC 10:1
CH2=2V DC 10:1
CH3=2V DC 10:1
CH4=1V DC 10:1
2ms/div (2ms/div) NORM:5MS/s
U
V
W
SPD
=Filter= Smoothing : OFF BW : 20MHz
=Offset= CH1 : 0.00V CH2 : 0.00V CH3 : 0.00V CH4 : 0.00V
=Record Length= Main : 100K Zoom : 25K
=Trigger= Mode : AUTO Type : EDGE CH1 Delay : 0.0ns Hold Off : 0.2us

Spindle Drive (U, V, W)

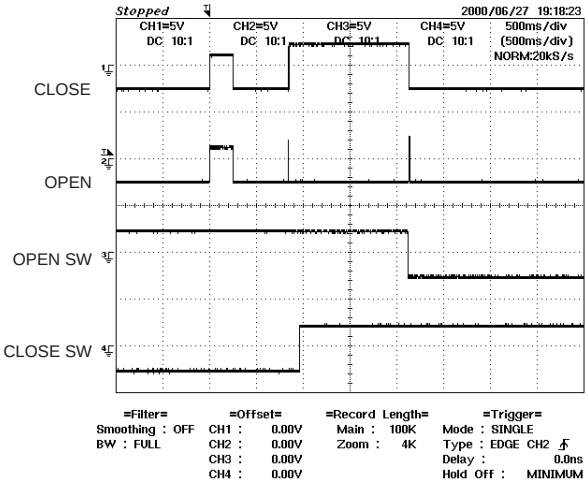

Stopped
2000/06/30 13:23:41
CH1=250mV DC 10:1
CH2=2V DC 10:1
CH3=5V DC 10:1
5ms/div (5ms/div) NORM:2MS/s
U
U+
FG
=Filter= Smoothing : OFF BW : 20MHz
=Offset= CH1 : 0.000V CH2 : 0.00V CH3 : 0.00V CH4 : 0.00V
=Record Length= Main : 100K Zoom : 200
=Trigger= Mode : AUTO Type : EDGE CH2 Delay : 0.0ns Hold Off : MINIMUM

Spindle (W, W+, FG)

F. Tray open and close

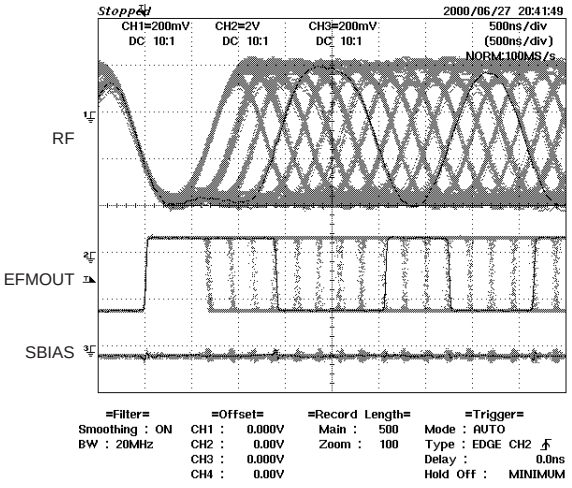

Stopped
2000/06/27 19:17:41
CH1=5V DC 10:1
CH2=5V DC 10:1
CH3=5V DC 10:1
CH4=5V DC 10:1
500ms/div (500ms/div) NORM:20kS/s
CLOSE
OPEN
OPEN SW
CLOSE SW
=Filter= Smoothing : OFF BW : FULL
=Offset= CH1 : 0.00V CH2 : 0.00V CH3 : 0.00V CH4 : 0.00V
=Record Length= Main : 100K Zoom : 4K
=Trigger= Mode : SINGLE Type : EDGE CH2 Delay : 0.0ns Hold Off : MINIMUM

Tray Close

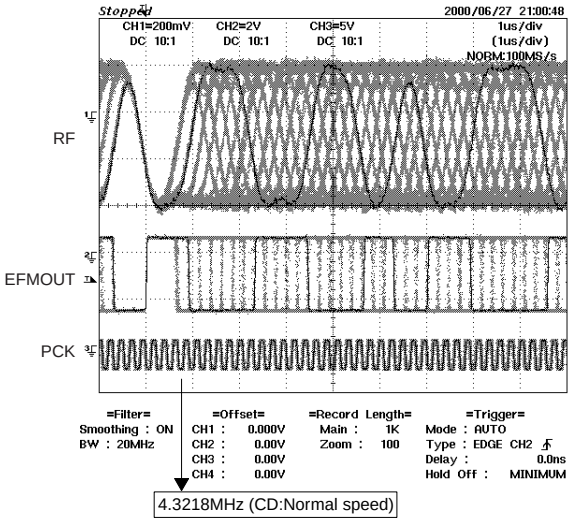

Stopped
2000/06/27 19:18:23
CH1=5V DC 10:1
CH2=5V DC 10:1
CH3=5V DC 10:1
CH4=5V DC 10:1
500ms/div (500ms/div) NORM:20kS/s
CLOSE
OPEN
OPEN SW
CLOSE SW
=Filter= Smoothing : OFF BW : FULL
=Offset= CH1 : 0.00V CH2 : 0.00V CH3 : 0.00V CH4 : 0.00V
=Record Length= Main : 100K Zoom : 4K
=Trigger= Mode : SINGLE Type : EDGE CH2 Delay : 0.0ns Hold Off : MINIMUM

Tray Open

3. Decorder

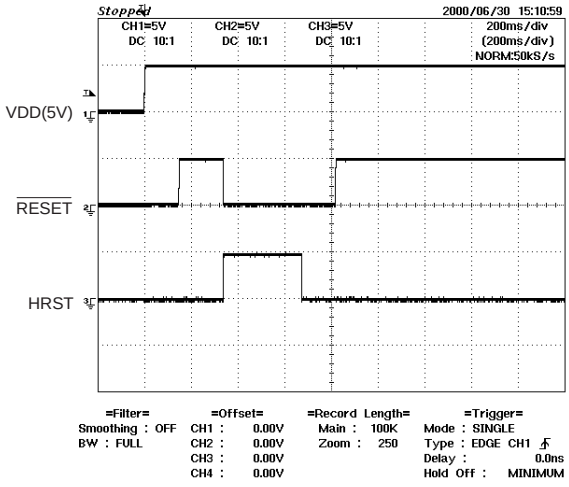

Stopped
2000/06/27 20:41:49
CH1=200mV DC 10:1
CH2=2V DC 10:1
CH3=200mV DC 10:1
500ns/div
(500ns/div)
NORM:100MS/s
RF
EFMOUT
SBIAS
=Filter= Smoothing : ON BW : 20MHz
=Offset= CH1 : 0.000V CH2 : 0.00V CH3 : 0.000V CH4 : 0.00V
=Record Length= Main : 500 Zoom : 100
=Trigger= Mode : AUTO Type : EDGE CH2 Delay : 0.0ns Hold Off : MINIMUM

RF, EFMOUT, SBAIS


Stopped
2000/06/27 21:00:48
CH1=200mV DC 10:1
CH2=2V DC 10:1
CH3=5V DC 10:1
1us/div
(1us/div)
NORM:100MS/s
RF
EFMOUT
PCK
=Filter= Smoothing : ON BW : 20MHz
=Offset= CH1 : 0.000V CH2 : 0.00V CH3 : 0.00V CH4 : 0.00V
=Record Length= Main : 1K Zoom : 100
=Trigger= Mode : AUTO Type : EDGE CH2 Delay : 0.0ns Hold Off : MINIMUM
4.3218MHz (CD:Normal speed)

RF, EFMOUT, PCK

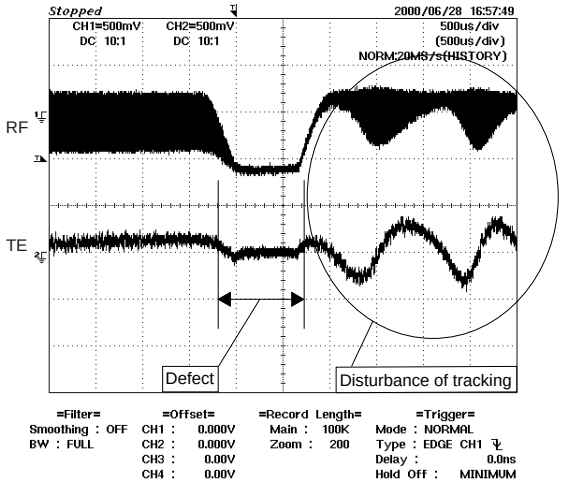
4. Reset Timing for Micom Cotroller


Stopped
2000/06/30 15:10:59
CH1=5V DC 10:1
CH2=5V DC 10:1
CH3=5V DC 10:1
200ms/div
(200ms/div)
NORM:50kS/s
VDD(5V)
RESET
HRST
=Filter= Smoothing : OFF BW : FULL
=Offset= CH1 : 0.00V CH2 : 0.00V CH3 : 0.00V CH4 : 0.00V
=Record Length= Main : 100K Zoom : 250
=Trigger= Mode : SINGLE Type : EDGE CH1 Delay : 0.0ns Hold Off : MINIMUM

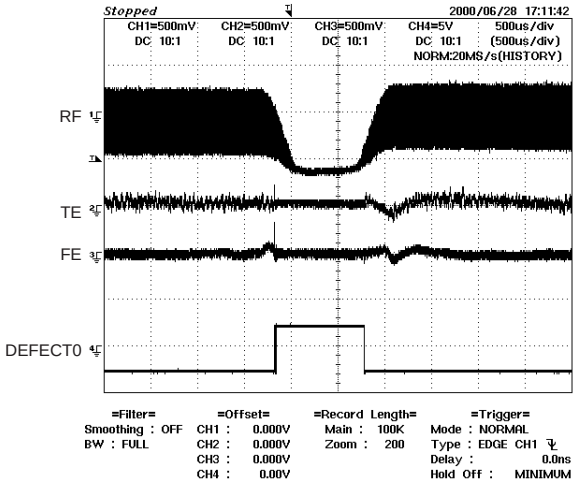
Reset Timing

5. Anti-Defect Processing

A. Disturbance by Defect

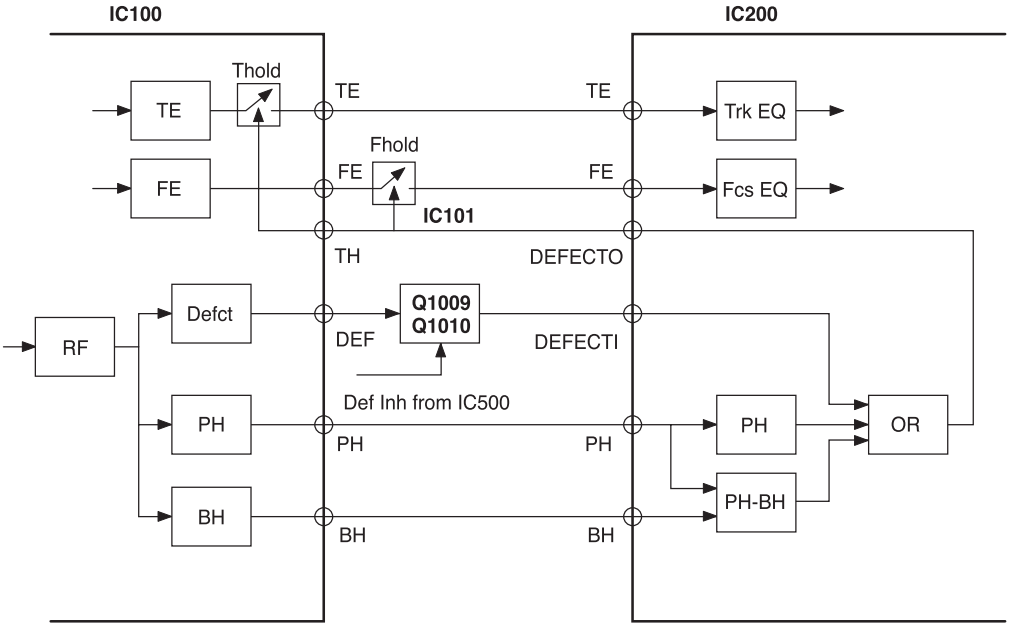

Stopped
2000/06/28 16:57:49
CH1=500mV DC 10:1
CH2=500mV DC 10:1
500us/div
(500us/div)
NORM:20MS/s(HISTORY)
RF
TE
Defect
Disturbance of tracking
=Filter= Smoothing : OFF BW : FULL
=Offset= CH1 : 0.000V CH2 : 0.000V CH3 : 0.00V CH4 : 0.00V
=Record Length= Main : 100K Zoom : 200
=Trigger= Mode : NORMAL Type : EDGE CH1 Delay : 0.0ns Hold Off : MINIMUM

TE disturbance at Defect



Suppressed disturbance by TE,FE hold process

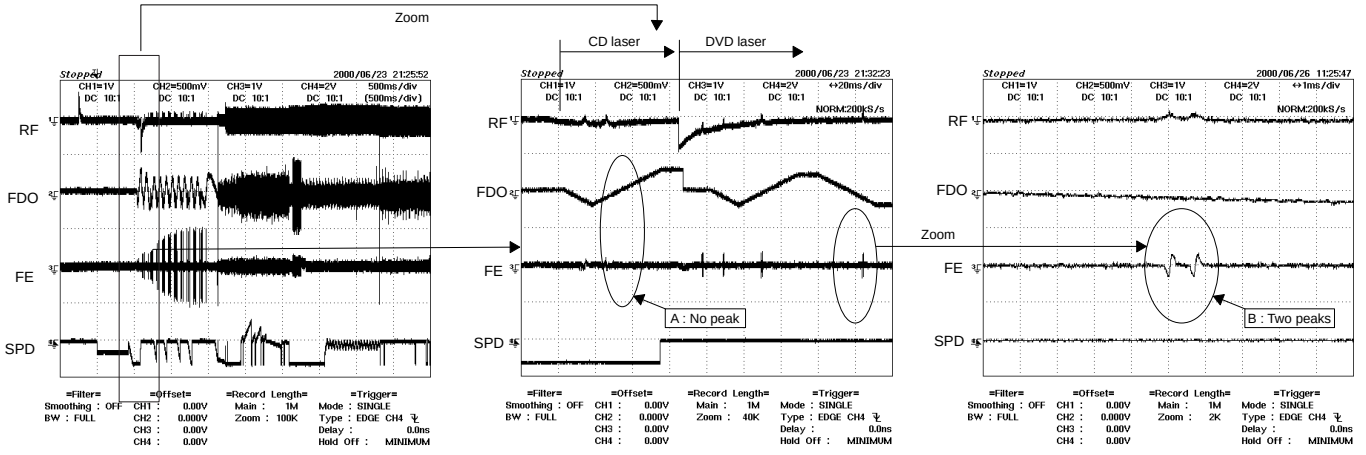
B. Circuit block of Anti-Defect



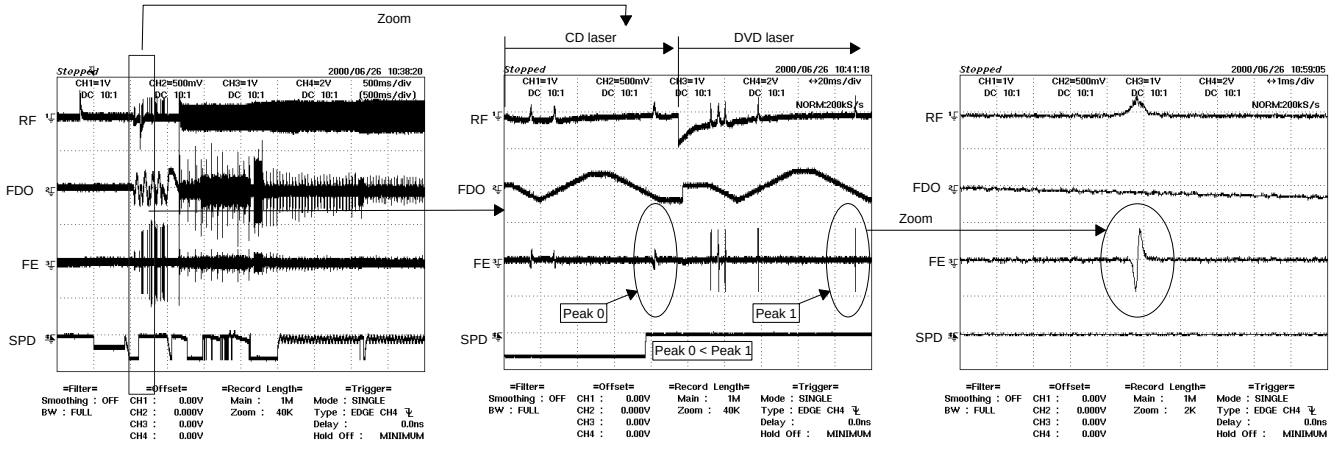
6. Start-up program

A. Disc type Identification

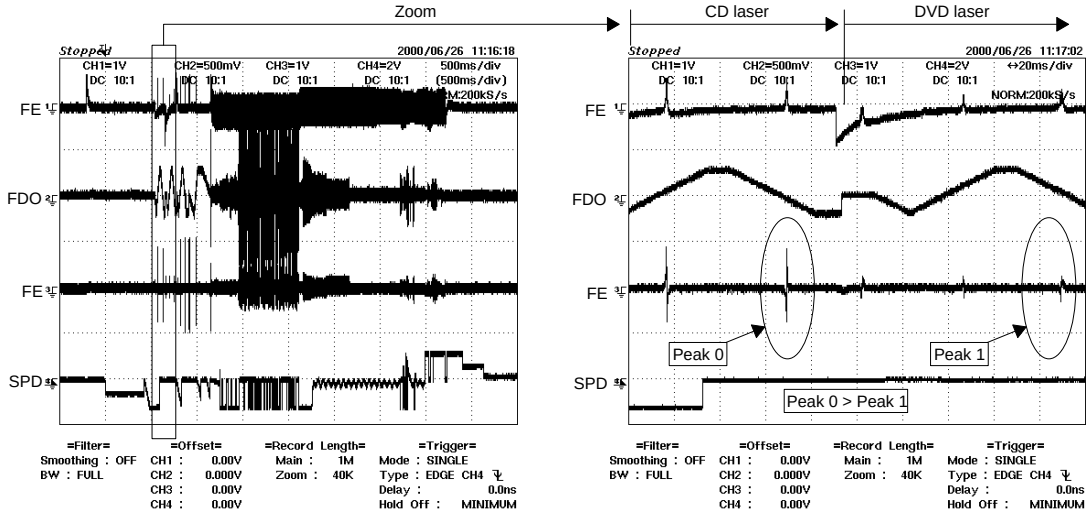
a. In the case of DVD Dual Disc



b. In the case of DVD Single Disc

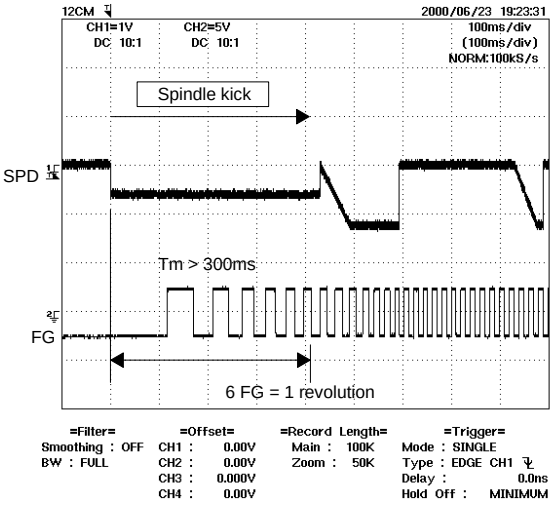


c. In the case of CD Disc

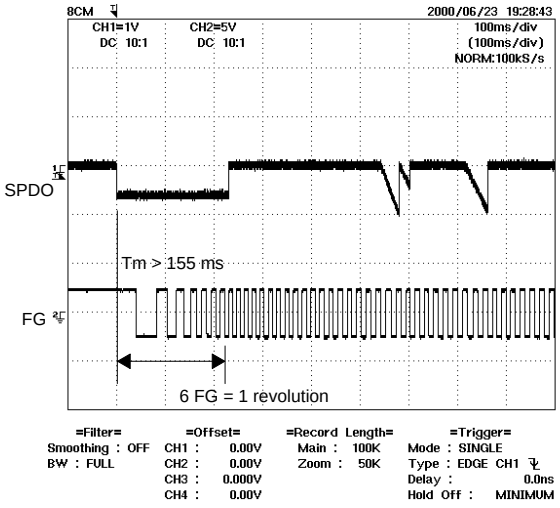


B. Disc diameter identification

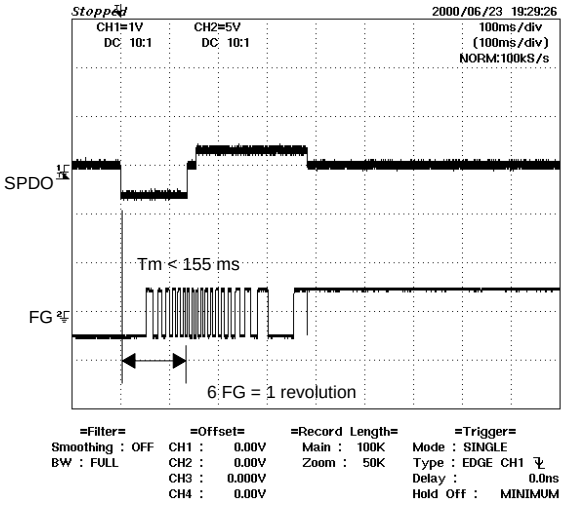
a. In the case of 12cm Disc


12CM
2000/06/23 19:23:31
CH1=1V DC 10:1
CH2=5V DC 10:1
100ms/div
(100ms/div)
NORM:100kS/s
Spindle kick
SPD
Tm > 300ms
FG
6 FG = 1 revolution
=Filter= Smoothing : OFF BW : FULL
=Offset= CH1 : 0.00V CH2 : 0.00V CH3 : 0.000V CH4 : 0.00V
=Record Length= Main : 100K Zoom : 50K
=Trigger= Mode : SINGLE Type : EDGE CH1 Delay : 0.0ns Hold Off : MINIMUM

b. In the case of 8cm Disc

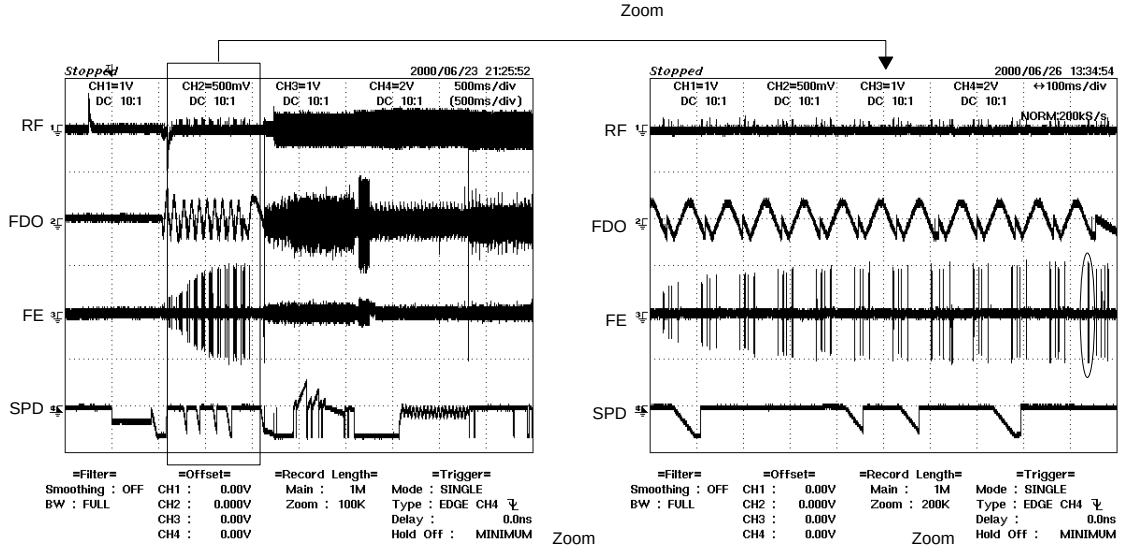

8CM
2000/06/23 19:28:43
CH1=1V DC 10:1
CH2=5V DC 10:1
100ms/div
(100ms/div)
NORM:100kS/s
SPDO
Tm > 155 ms
FG
6 FG = 1 revolution
=Filter= Smoothing : OFF BW : FULL
=Offset= CH1 : 0.00V CH2 : 0.00V CH3 : 0.000V CH4 : 0.00V
=Record Length= Main : 100K Zoom : 50K
=Trigger= Mode : SINGLE Type : EDGE CH1 Delay : 0.0ns Hold Off : MINIMUM

c. In the case of NO Disc

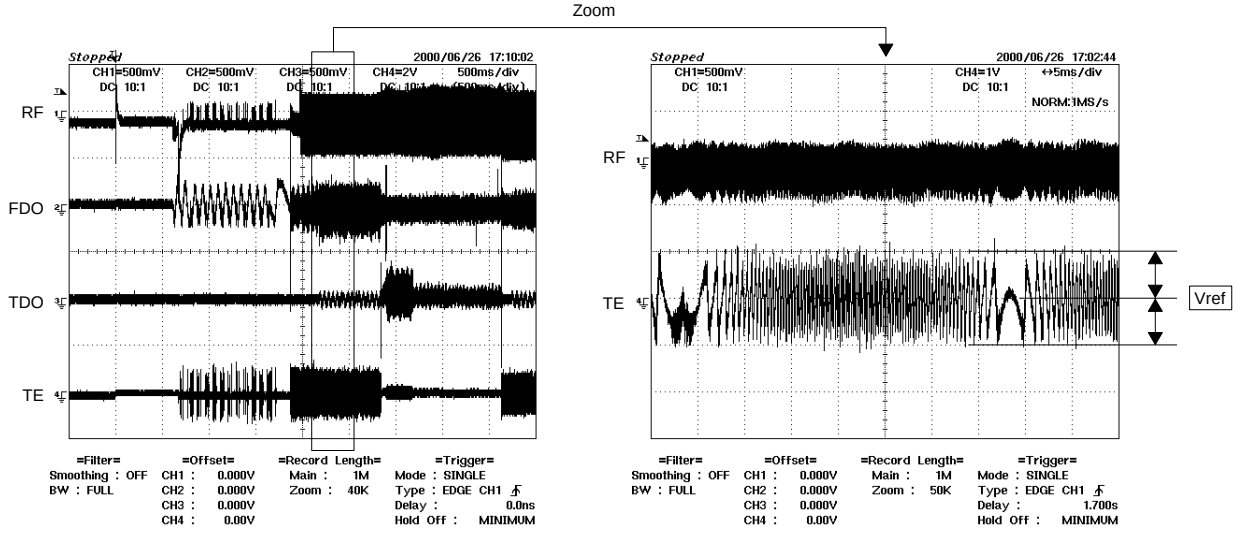

Stopped
2000/06/23 19:29:26
CH1=1V DC 10:1
CH2=5V DC 10:1
100ms/div
(100ms/div)
NORM:100kS/s
SPDO
Tm < 155 ms
FG
6 FG = 1 revolution
=Filter= Smoothing : OFF BW : FULL
=Offset= CH1 : 0.00V CH2 : 0.00V CH3 : 0.000V CH4 : 0.00V
=Record Length= Main : 100K Zoom : 50K
=Trigger= Mode : SINGLE Type : EDGE CH1 Delay : 0.0ns Hold Off : MINIMUM

7. Adjustment (Auto Adjustment)

A. SGC(Signal Gain Control) Adjustment

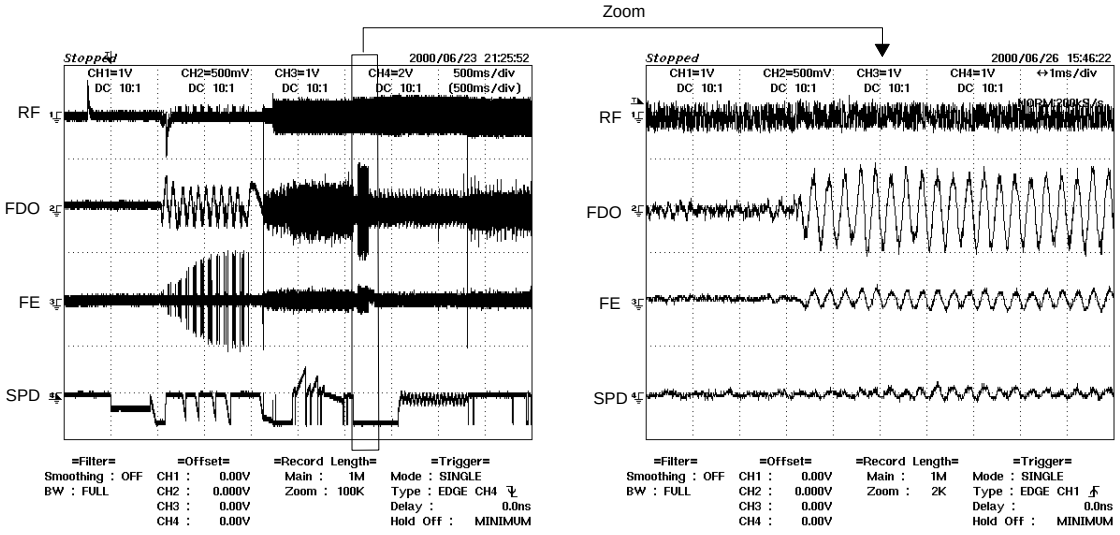


B. Tracking Balance Adjustment

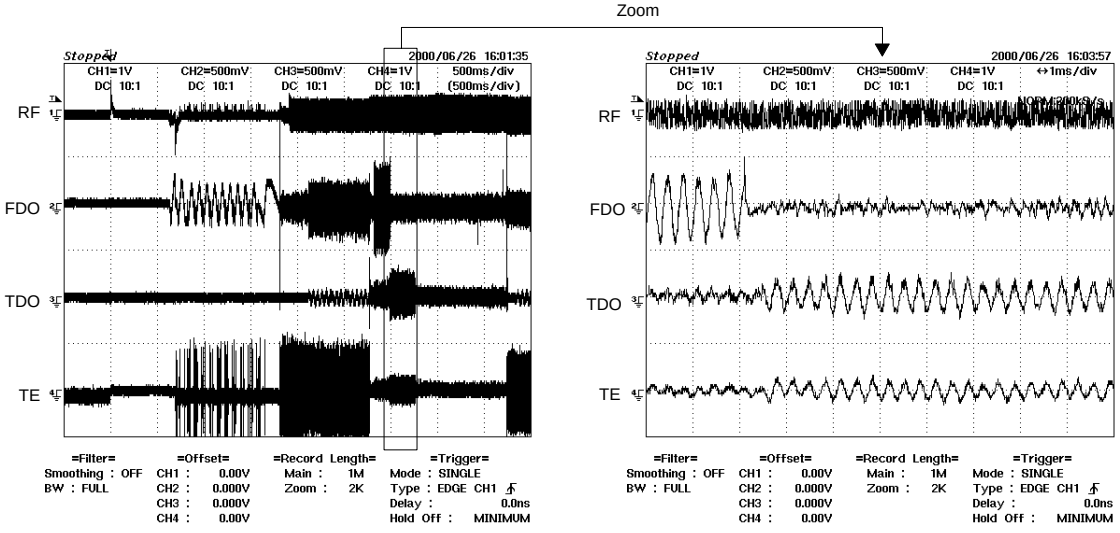

Zoom
Stopped
2000/06/26 17:10:02
CH1=500mV DC 10:1
CH2=500mV DC 10:1
CH3=500mV DC 10:1
CH4=2V DC 10:1
500ms/div
RF
FDO
TDO
TE
=Filter= Smoothing : OFF BW : FULL
=Offset= CH1 : 0.000V CH2 : 0.000V CH3 : 0.000V CH4 : 0.00V
=Record Length= Main : 1M Zoom : 40K
=Trigger= Mode : SINGLE Type : EDGE CH1 Delay : 0.0ns Hold Off : MINIMUM
Stopped
2000/06/26 17:02:44
CH1=500mV DC 10:1
CH4=1V DC 10:1
↔5ms/div
NORM:1MS/s
RF
TE
Vref
=Filter= Smoothing : OFF BW : FULL
=Offset= CH1 : 0.000V CH2 : 0.000V CH3 : 0.000V CH4 : 0.00V
=Record Length= Main : 1M Zoom : 50K
=Trigger= Mode : SINGLE Type : EDGE CH1 Delay : 1.700s Hold Off : MINIMUM

C. Focus and Tracking Gain Adjustment

a. Focus gain Adjustment


Zoom
Stopped
2000/06/23 21:25:52
CH1=1V DC 10:1
CH2=500mV DC 10:1
CH3=1V DC 10:1
CH4=2V DC 10:1
500ms/div (500ms/div)
RF
FDO
FE
SPD
=Filter= Smoothing : OFF BW : FULL
=Offset= CH1 : 0.00V CH2 : 0.000V CH3 : 0.00V CH4 : 0.00V
=Record Length= Main : 1M Zoom : 100K
=Trigger= Mode : SINGLE Type : EDGE CH4 Delay : 0.0ns Hold Off : MINIMUM
Stopped
2000/06/26 15:46:22
CH1=1V DC 10:1
CH2=500mV DC 10:1
CH3=1V DC 10:1
CH4=1V DC 10:1
↔1ms/div
RF
FDO
FE
SPD
=Filter= Smoothing : OFF BW : FULL
=Offset= CH1 : 0.00V CH2 : 0.000V CH3 : 0.00V CH4 : 0.00V
=Record Length= Main : 1M Zoom : 2K
=Trigger= Mode : SINGLE Type : EDGE CH1 Delay : 0.0ns Hold Off : MINIMUM

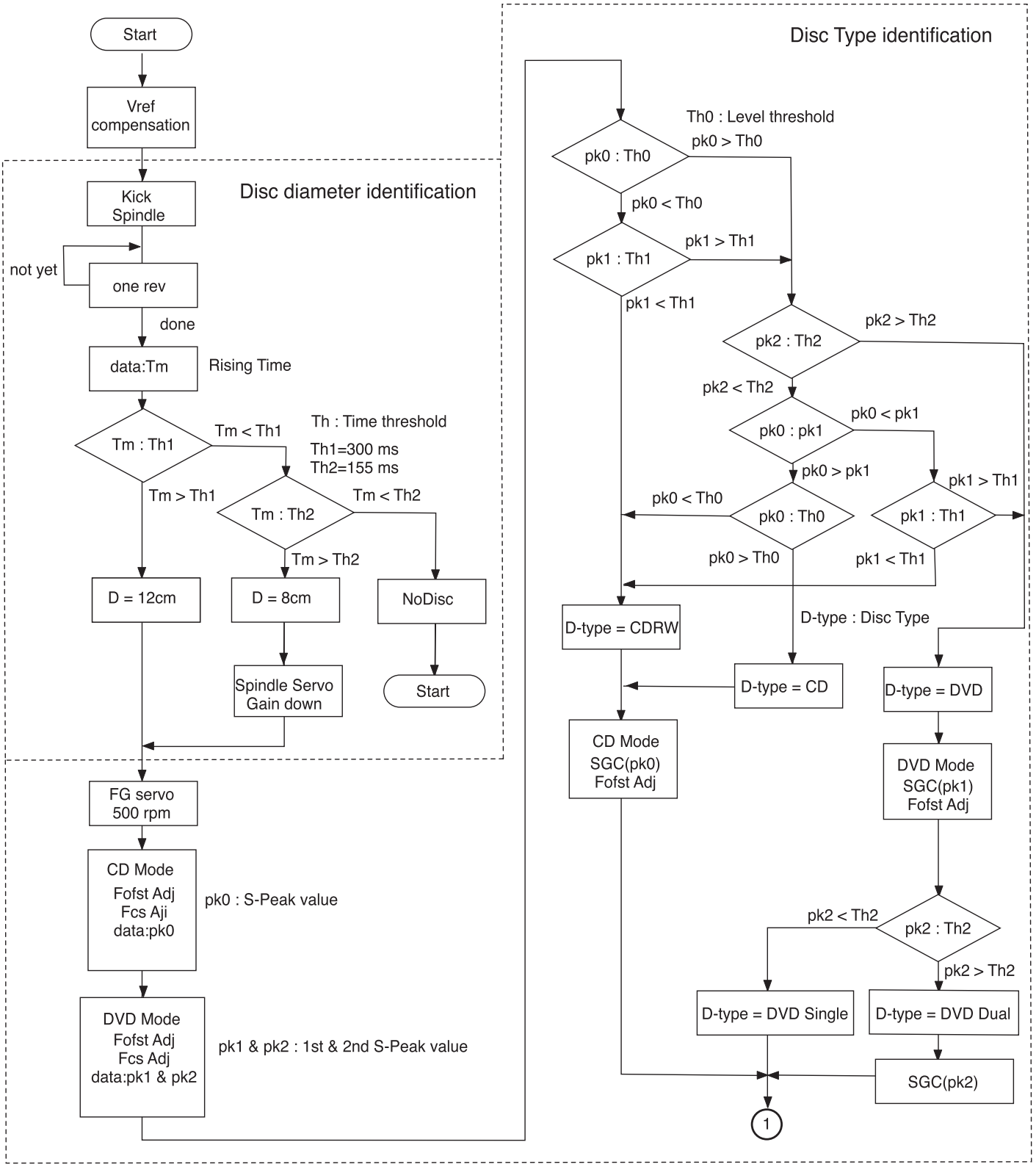
b. Tracking Gain Adjustment


Zoom
Stopped
2000/06/26 16:01:35
CH1=1V DC 10:1
CH2=500mV DC 10:1
CH3=500mV DC 10:1
CH4=1V DC 10:1
500ms/div (500ms/div)
RF
FDO
TDO
TE
=Filter= Smoothing : OFF BW : FULL
=Offset= CH1 : 0.00V CH2 : 0.000V CH3 : 0.000V CH4 : 0.00V
=Record Length= Main : 1M Zoom : 2K
=Trigger= Mode : SINGLE Type : EDGE CH1 Delay : 0.0ns Hold Off : MINIMUM
Stopped
2000/06/26 16:03:57
CH1=1V DC 10:1
CH2=500mV DC 10:1
CH3=500mV DC 10:1
CH4=1V DC 10:1
↔1ms/div
RF
FDO
TDO
TE
=Filter= Smoothing : OFF BW : FULL
=Offset= CH1 : 0.00V CH2 : 0.000V CH3 : 0.000V CH4 : 0.00V
=Record Length= Main : 1M Zoom : 2K
=Trigger= Mode : SINGLE Type : EDGE CH1 Delay : 0.0ns Hold Off : MINIMUM

DVD START-UP PROGRAM FLOW CHART

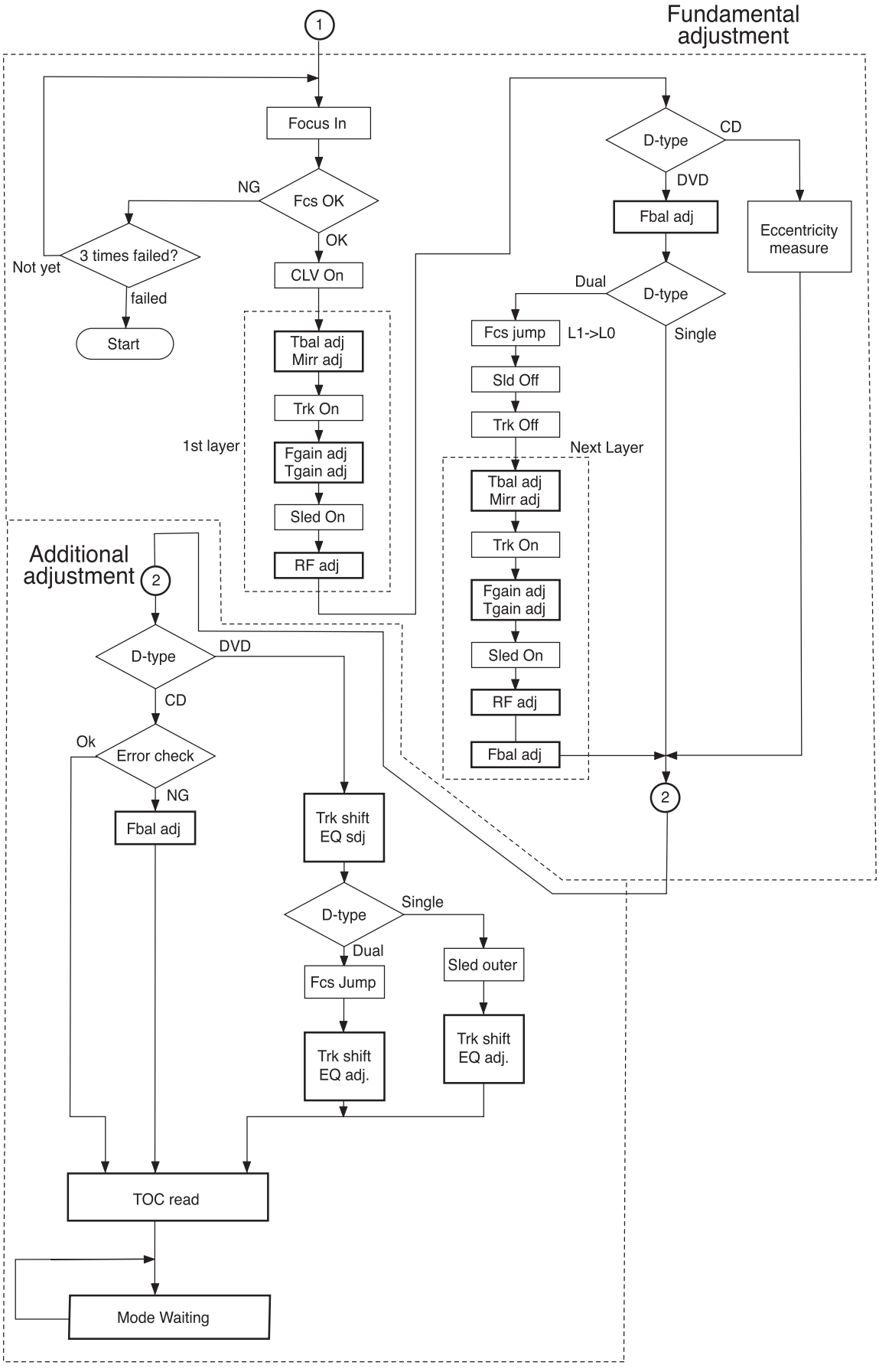
(This is a basic start-up program flow chart.)

1. Disc Identification



DVD START-UP PROGRAM FLOW CHART

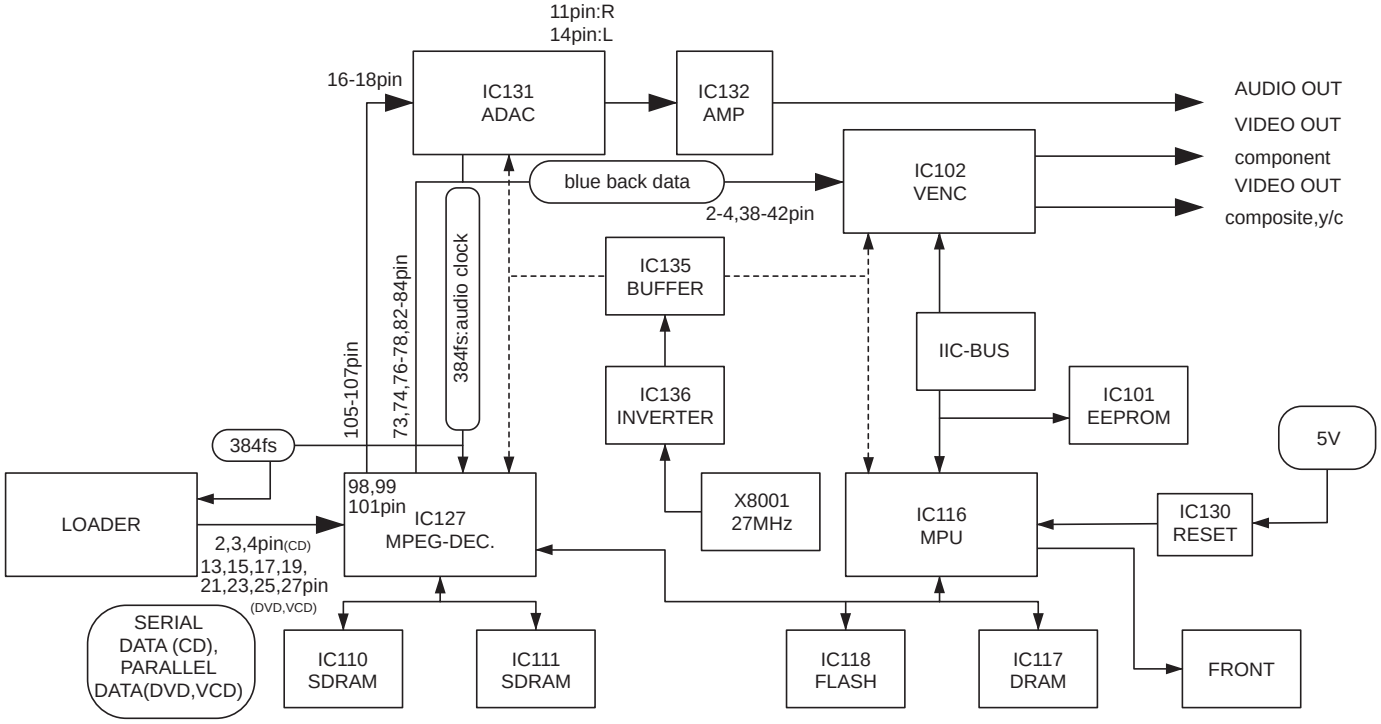
2. Fundamental and additional auto adjustment



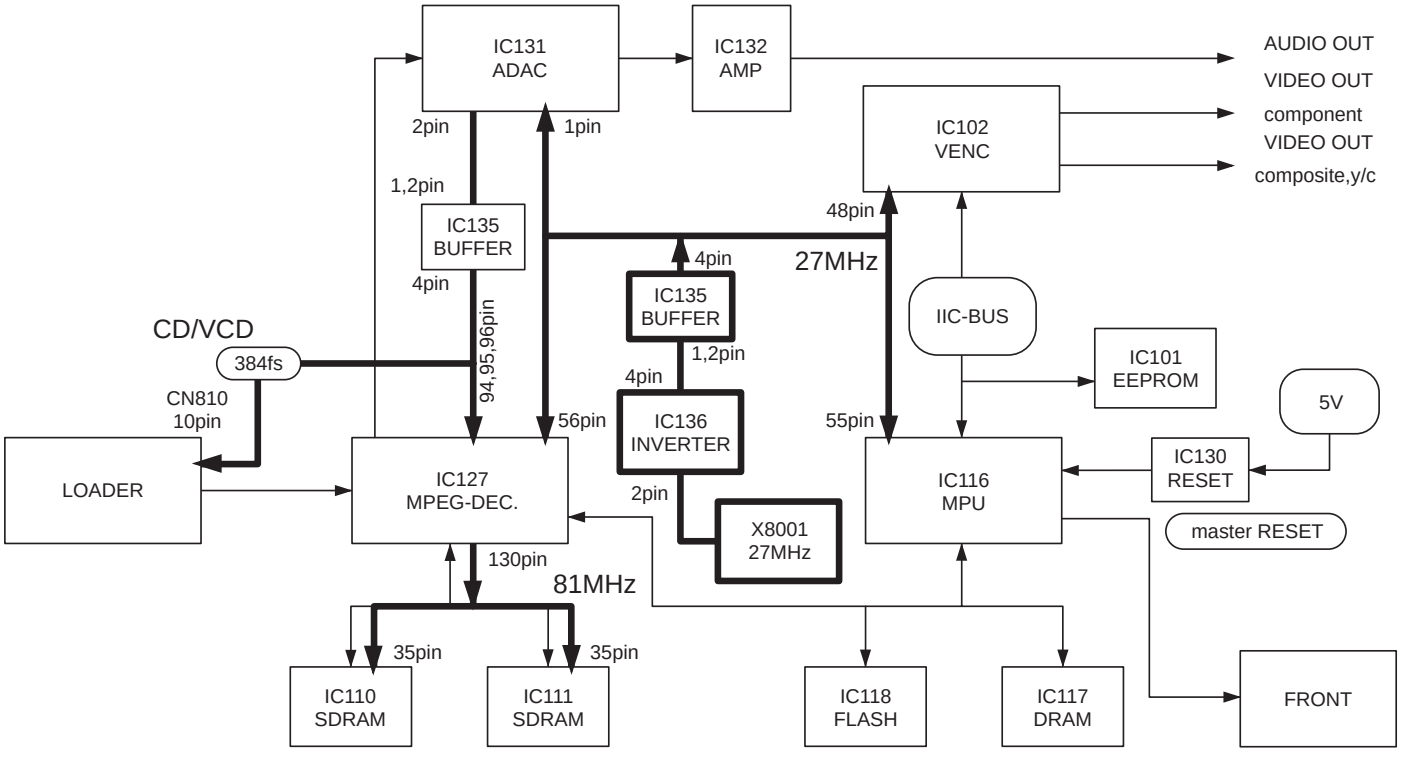
MPEG AND FRONT END P.W.BOARD OPERATION (BLOCK DIAGRAM)

(This is a basic block diagram.)

DVD,VCD,CD MAIN signal diagram



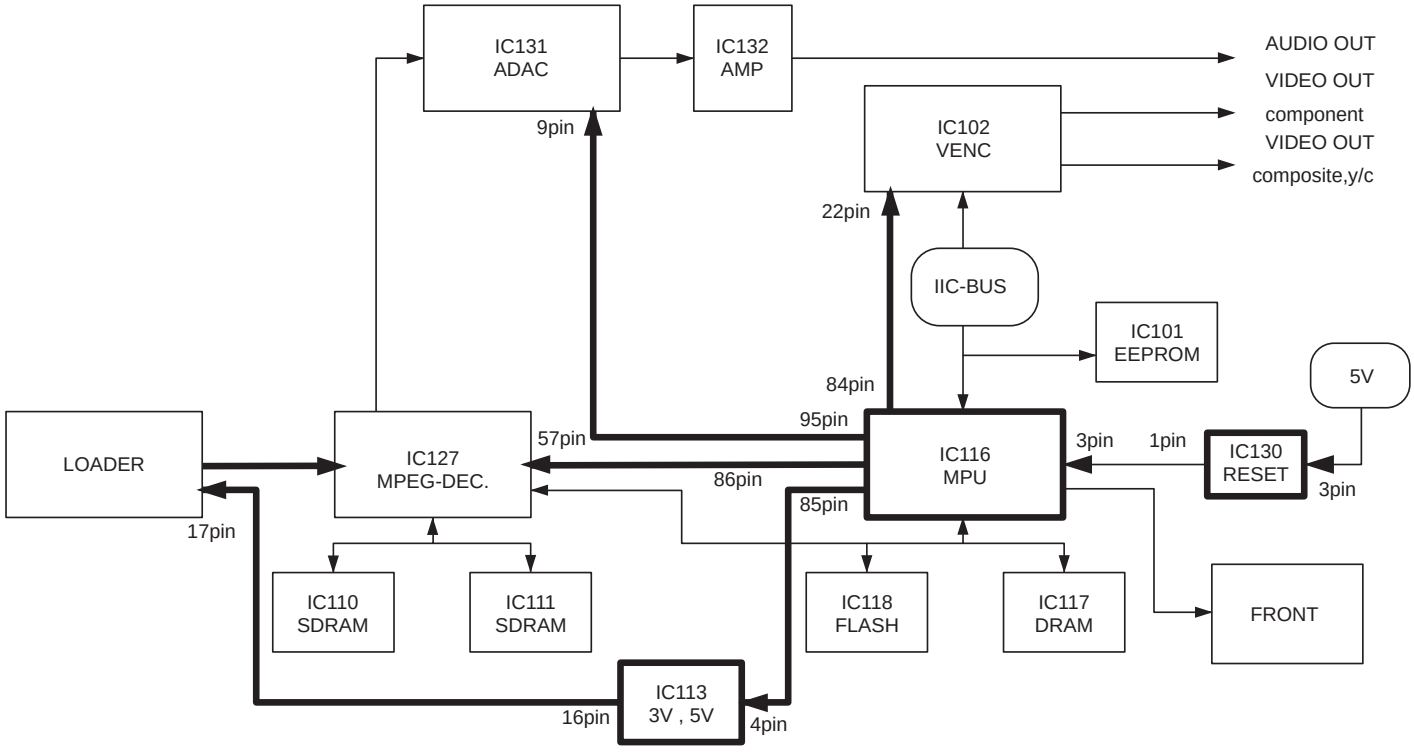
CLOCK signal diagram



MPEG AND FRONT END P.W.BOARD OPERATION (BLOCK DIAGRAM)

(This is a basic block diagram.)

RESET signal diagram

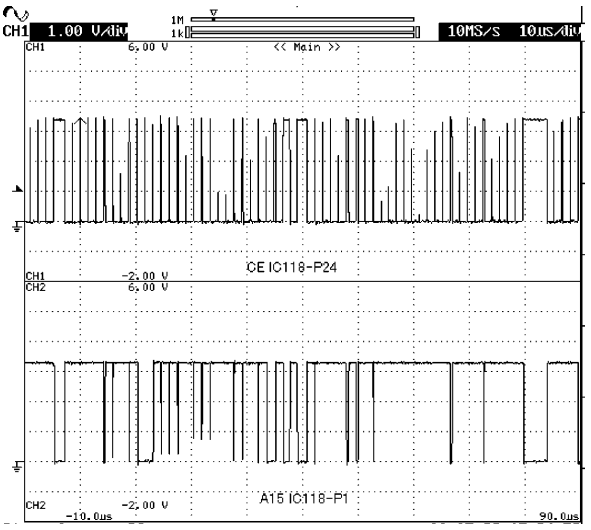


MPEG AND FRONT END P.W.BOARD CHECK WAVEFORM

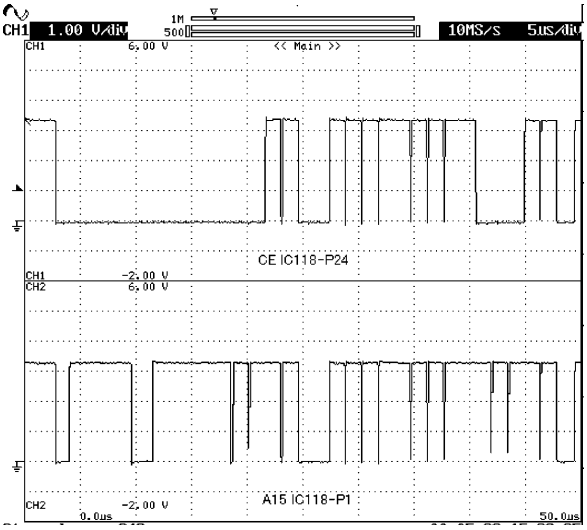
(This is a basic check waveform.)

Indicate each signal in schematic diagram **of MPEG**

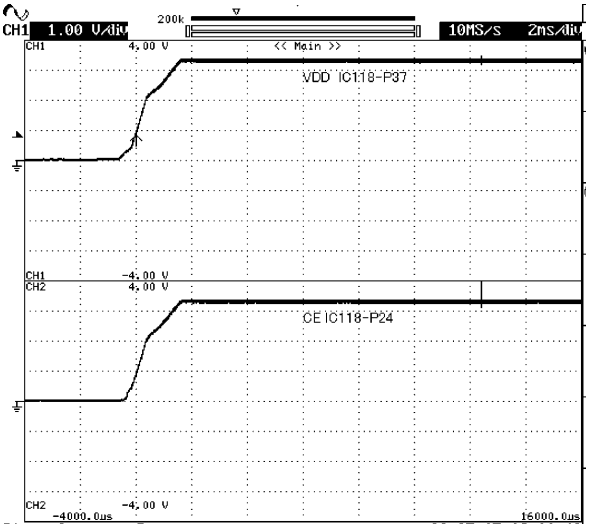
①



②

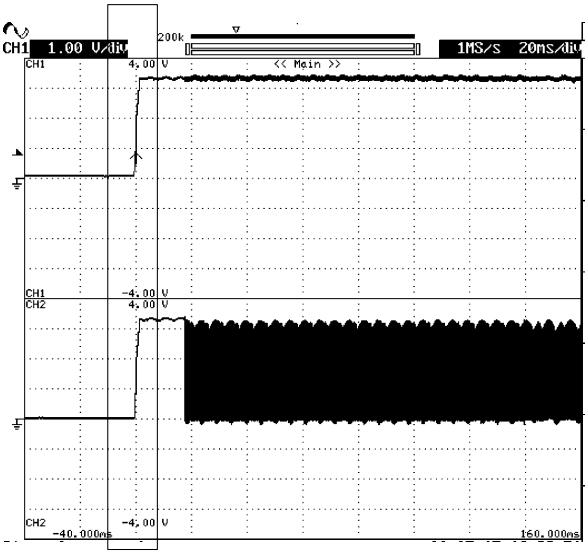


③

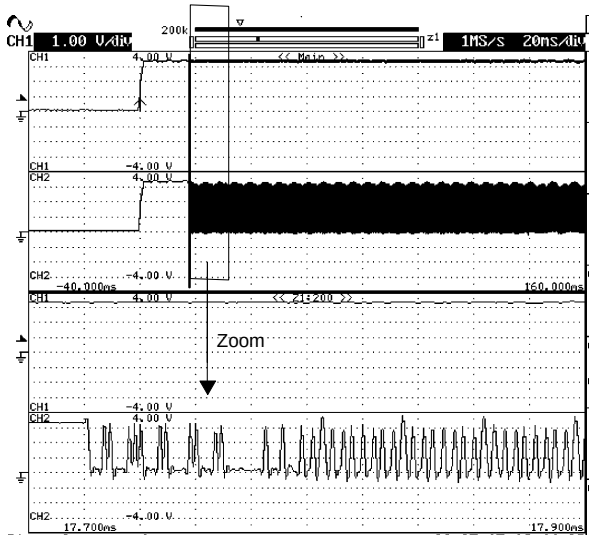


Zoom

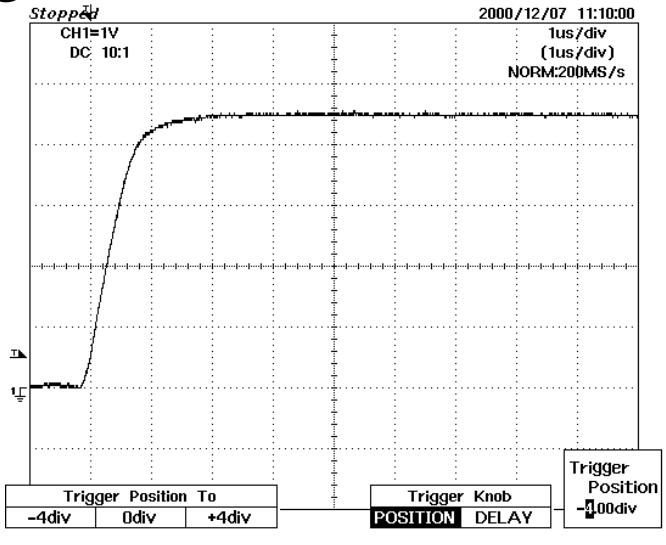
④



⑤

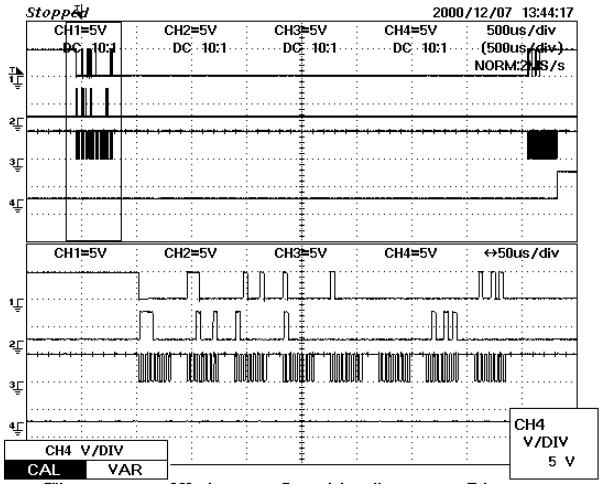


⑥

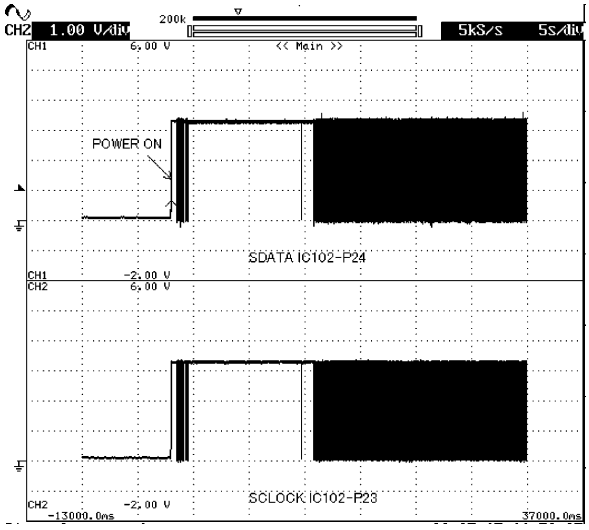


MPEG AND FRONT END P.W.BOARD CHECK WAVEFORM

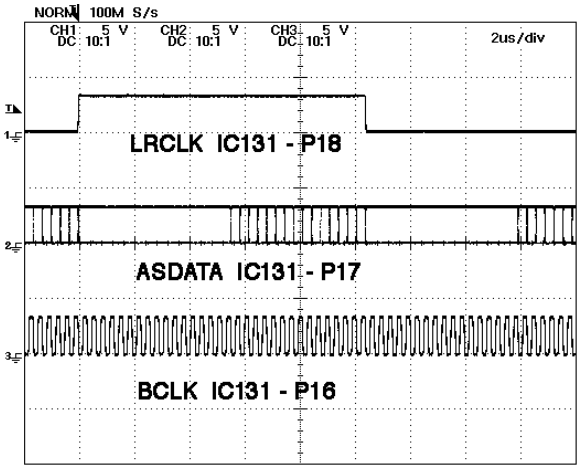
⑦



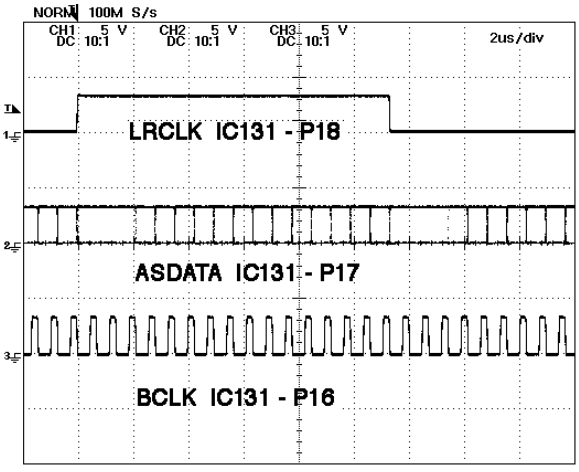
⑧



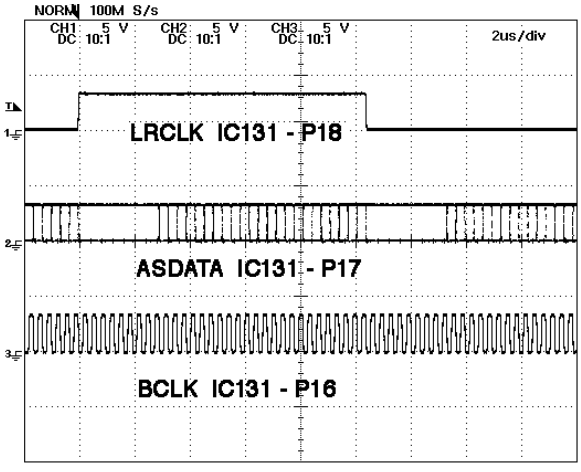
⑩ DVD



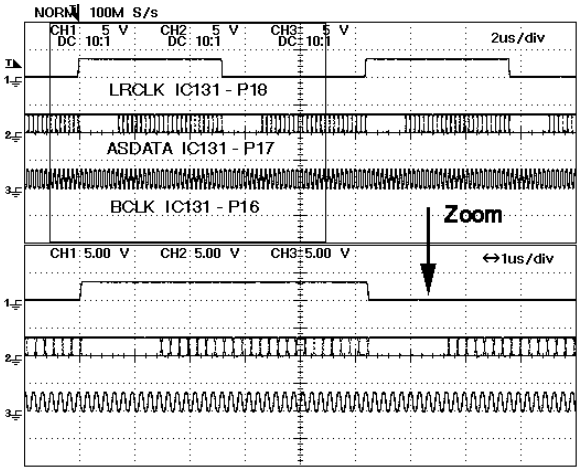
CD



⑪

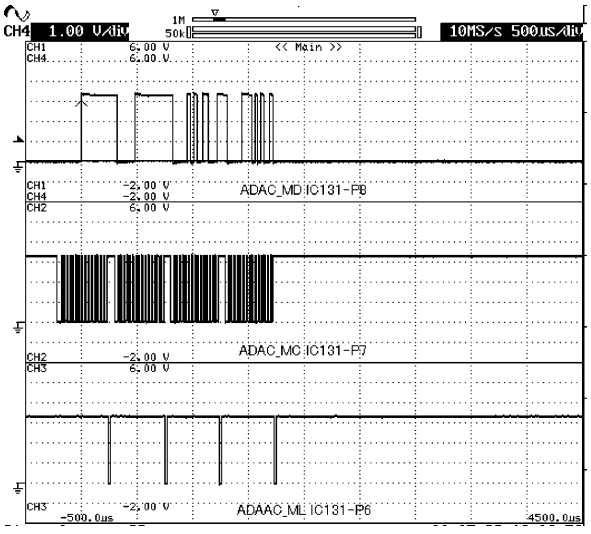


⑫



MPEG AND FRONT END P.W.BOARD CHECK WAVEFORM

⑬



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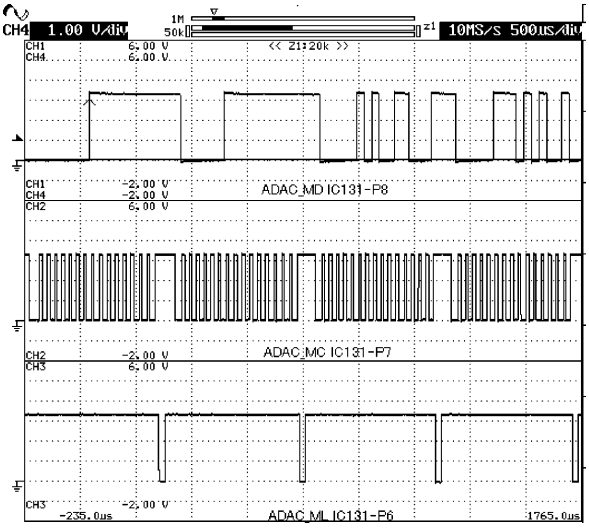
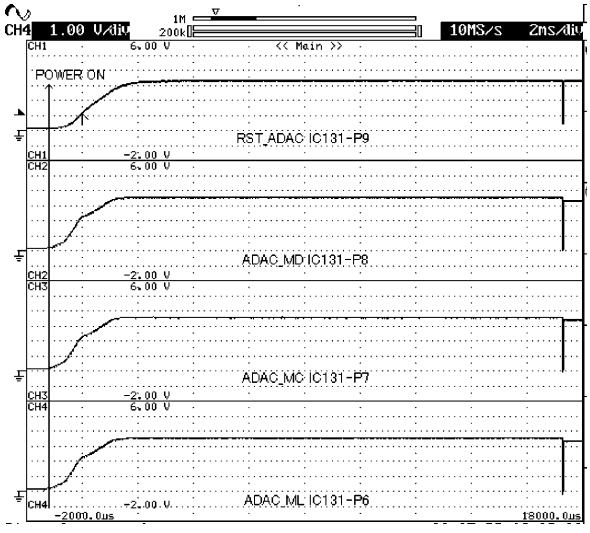
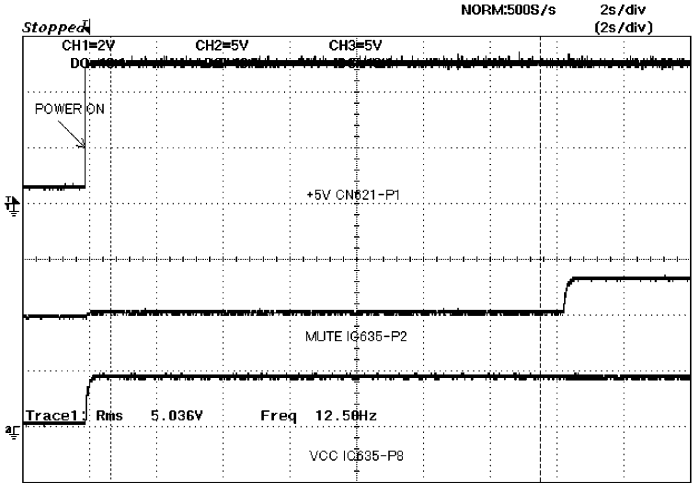


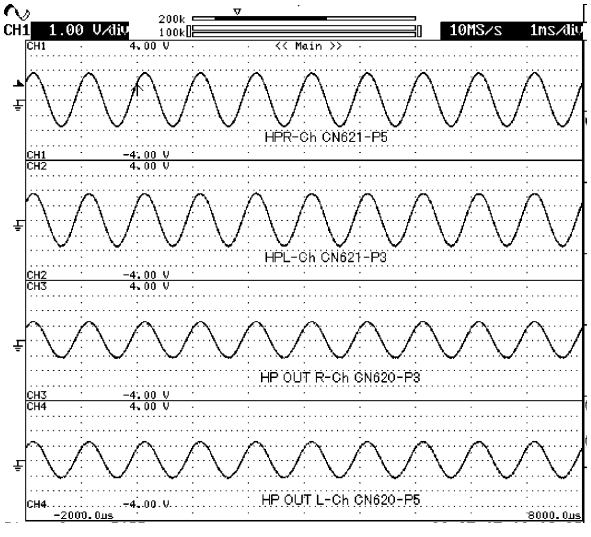
⑮



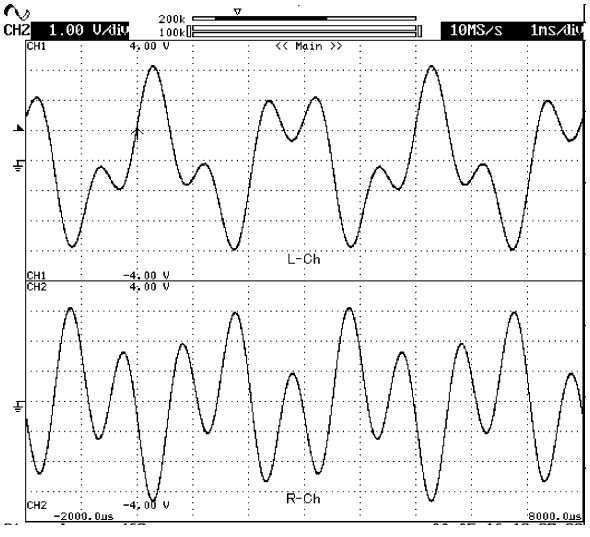
⑯



⑰

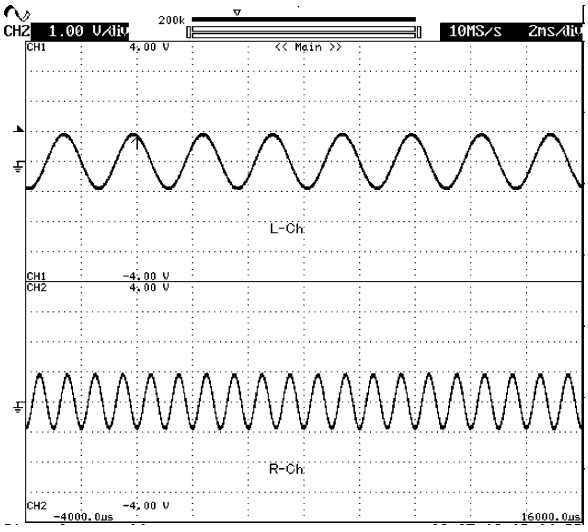


⑱ Surround ON

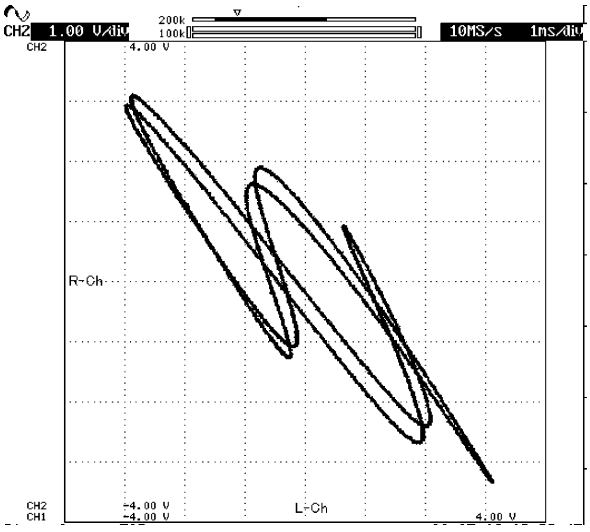


MPEG AND FRONT END P.W.BOARD CHECK WAVEFORM

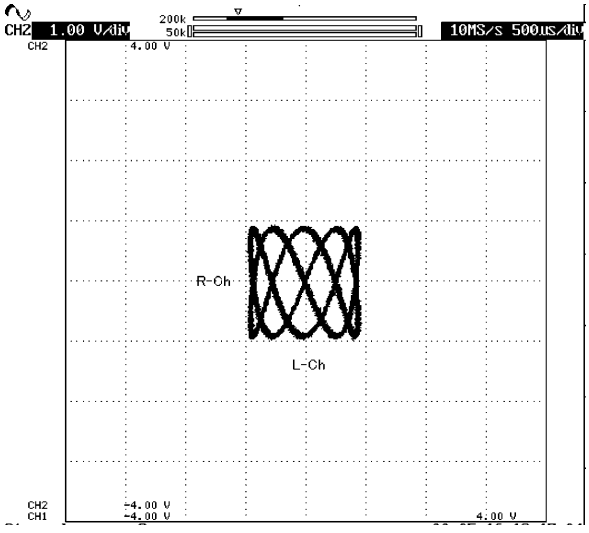
⑲ Surround OFF



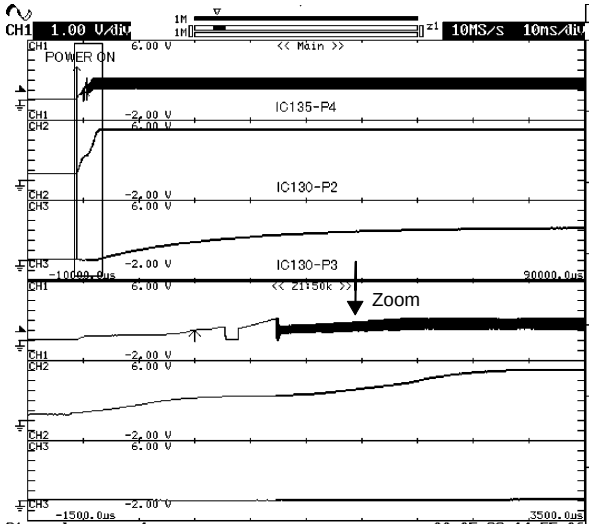
⑳ Surround ON



㉑ Surround OFF



㉒



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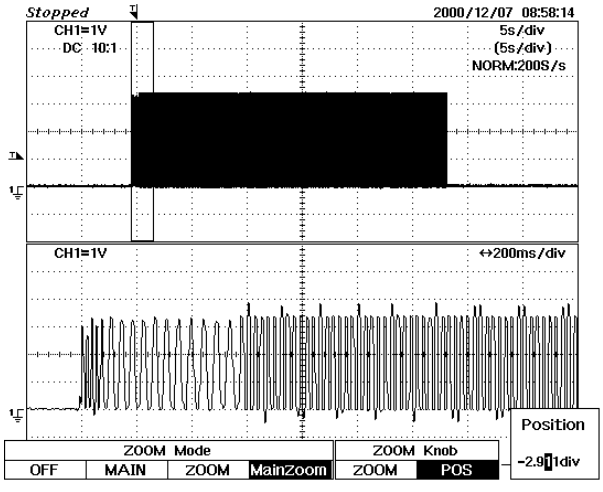
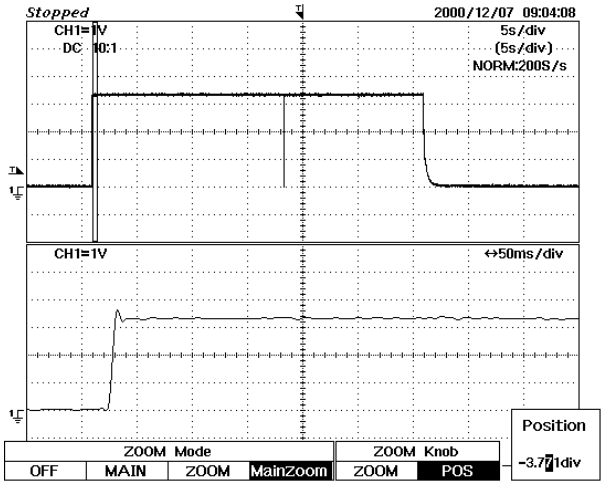
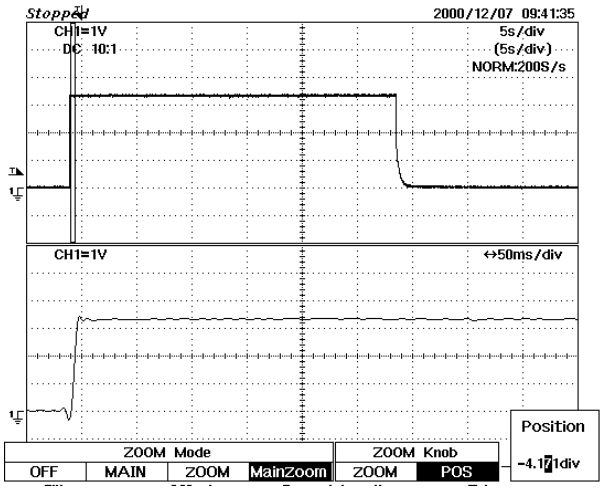


51

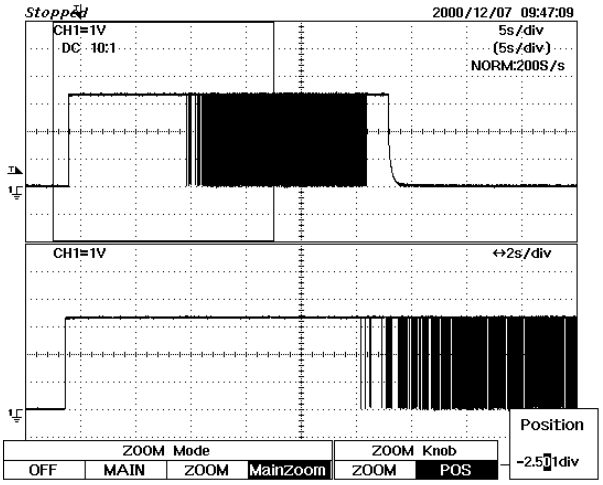


MPEG AND FRONT END P.W.BOARD CHECK WAVEFORM

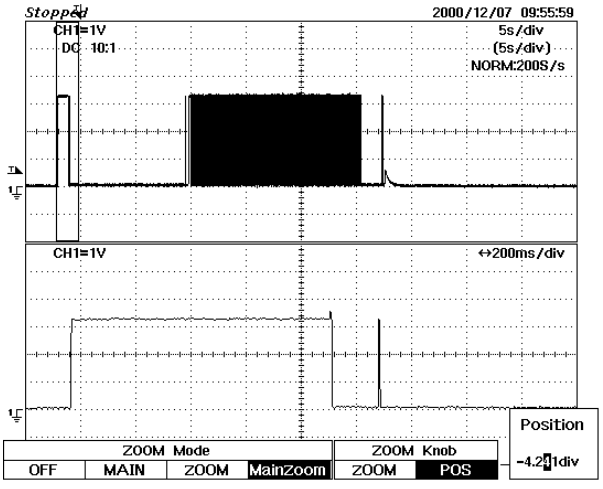
52



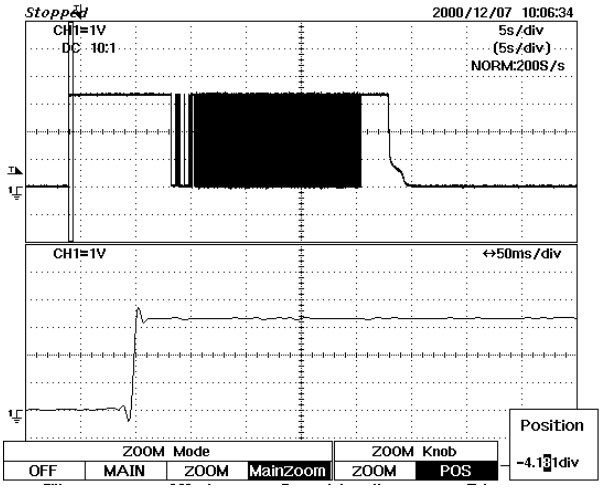
53



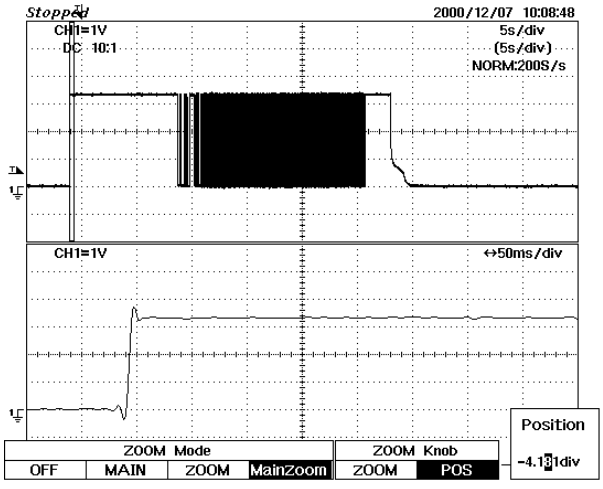
54



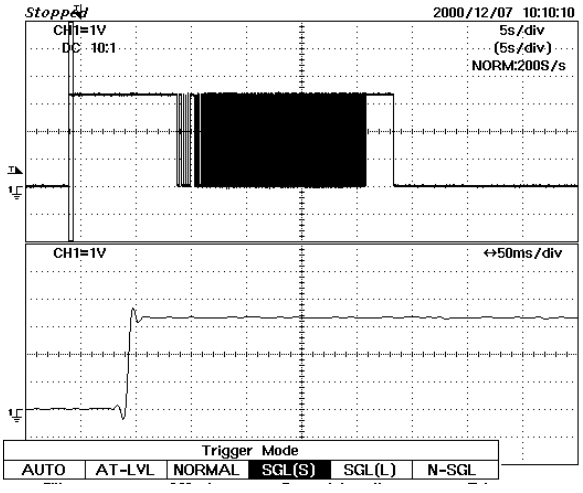
55



56

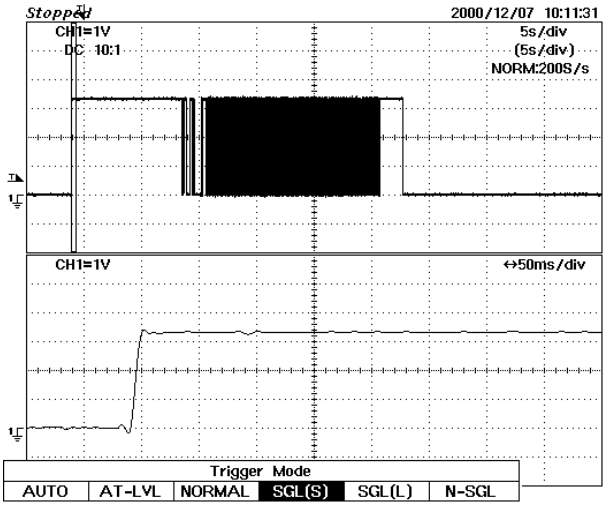


57

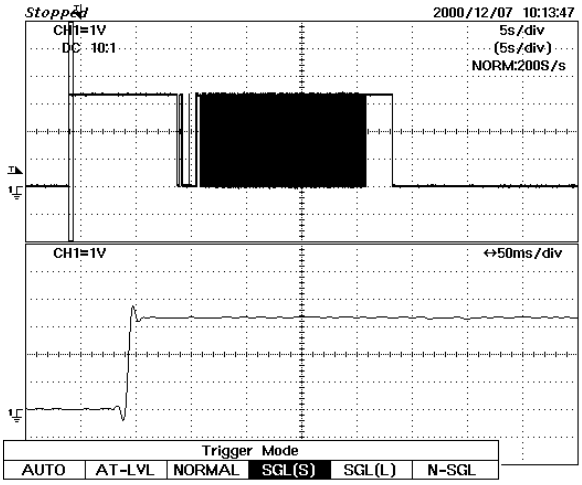


MPEG AND FRONT END P.W.BOARD CHECK WAVEFORM

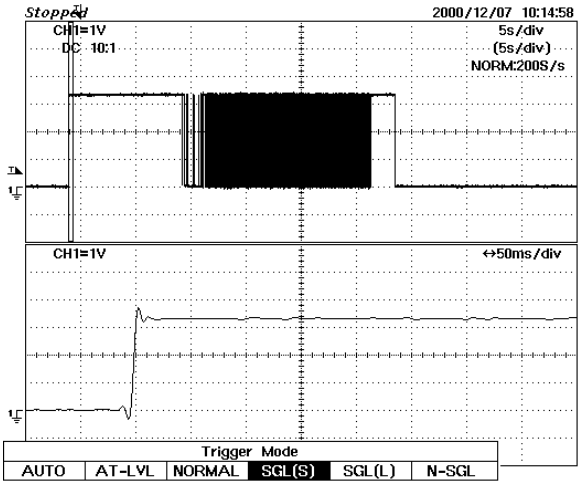
58



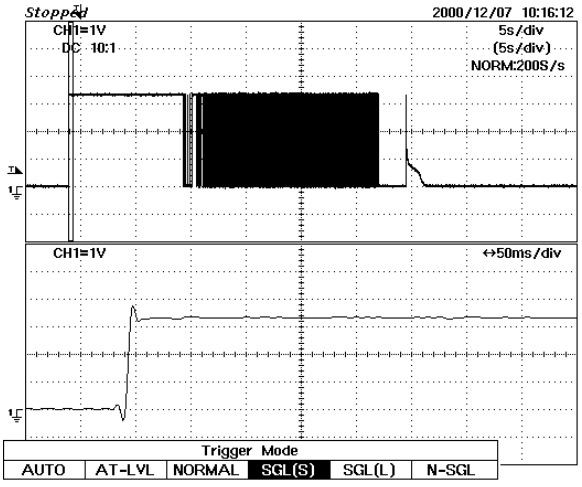
59



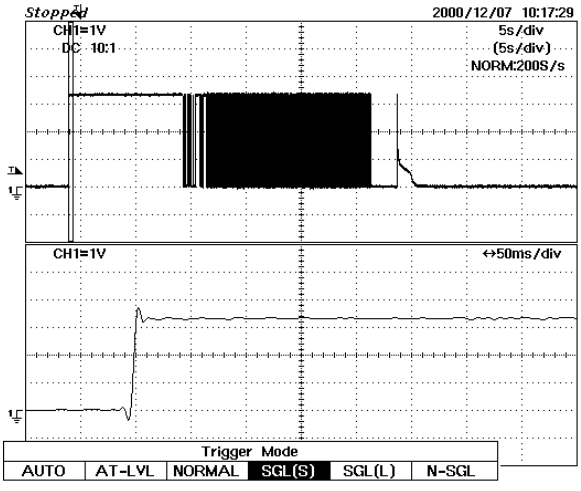
60



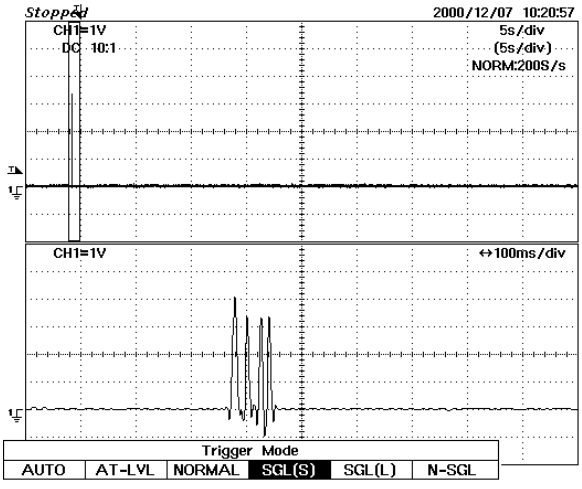
61



62

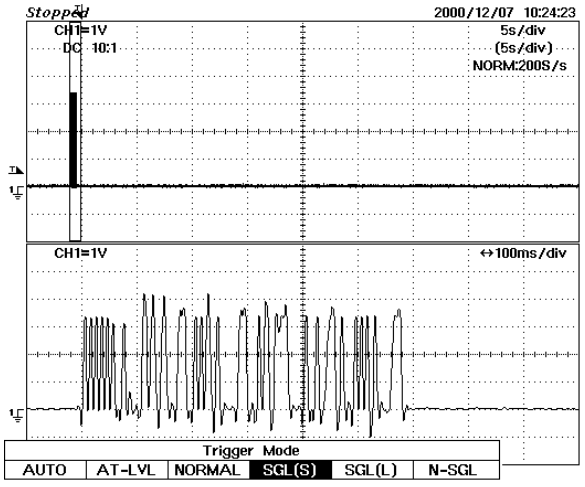


63

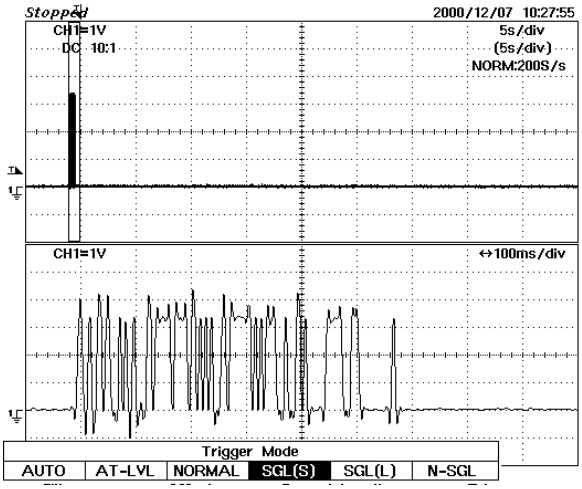


MPEG AND FRONT END P.W.BOARD CHECK WAVEFORM

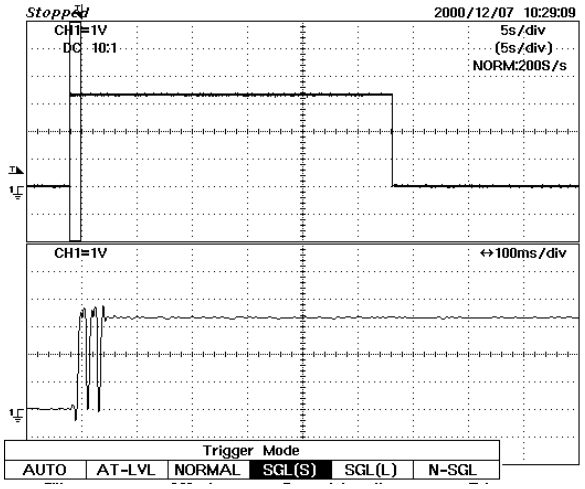
64



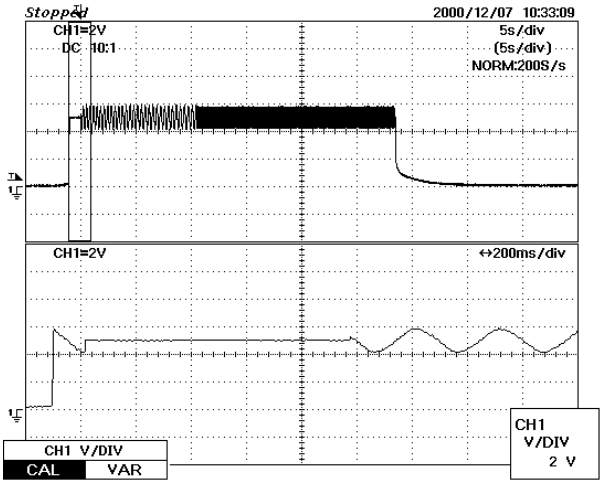
65



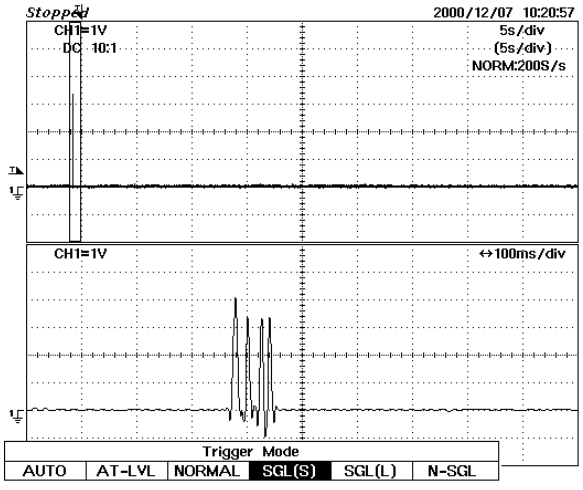
66



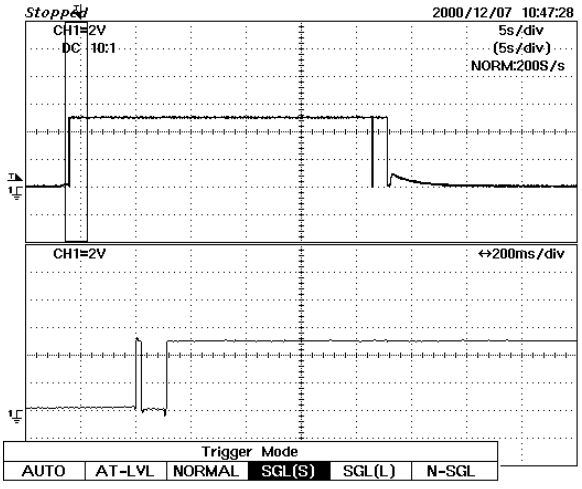
67



68

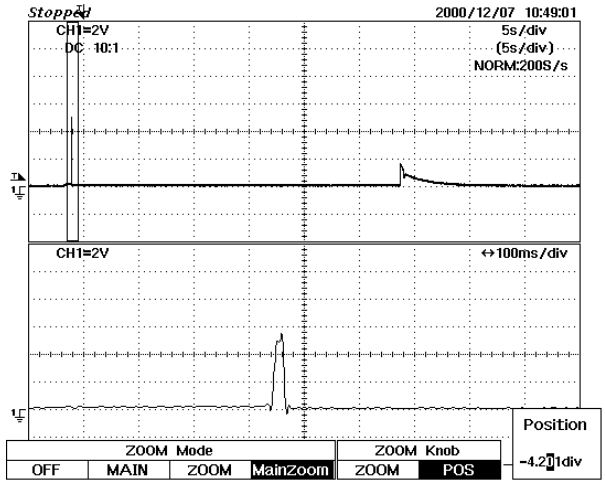


69

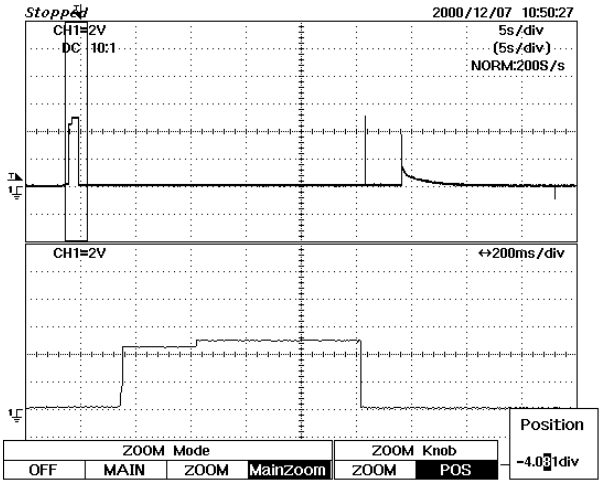


MPEG AND FRONT END P.W.BOARD CHECK WAVEFORM

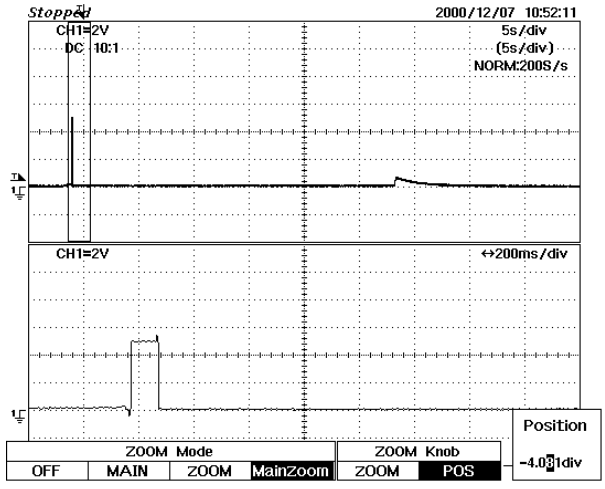
70



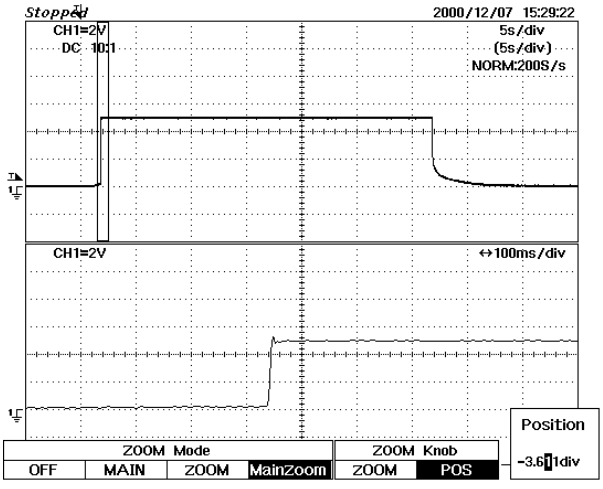
71



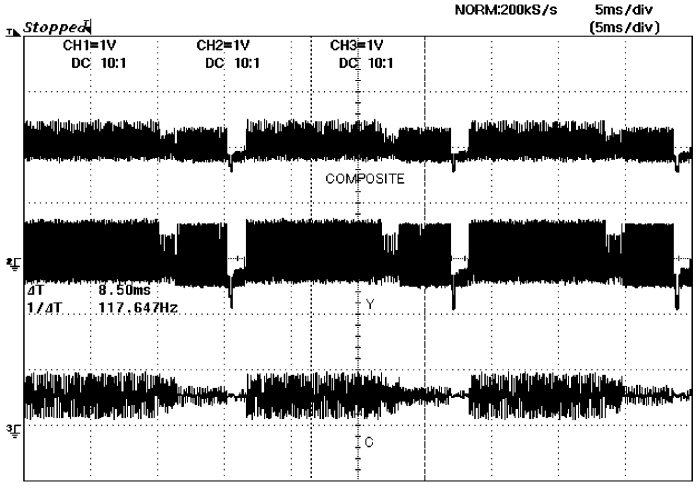
72



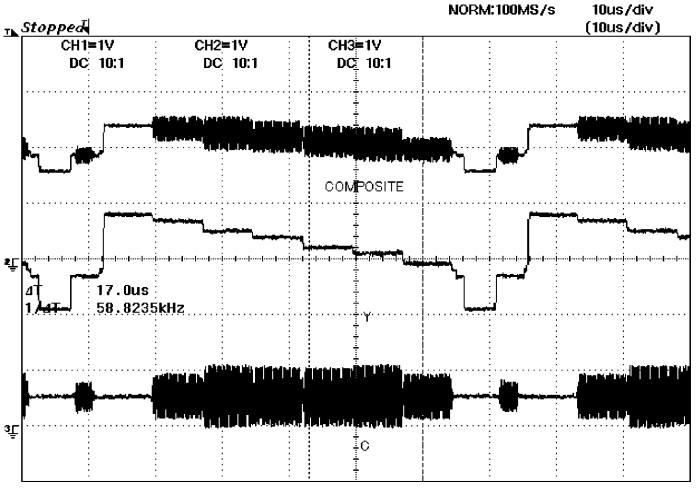
73



78 S-VIDEO



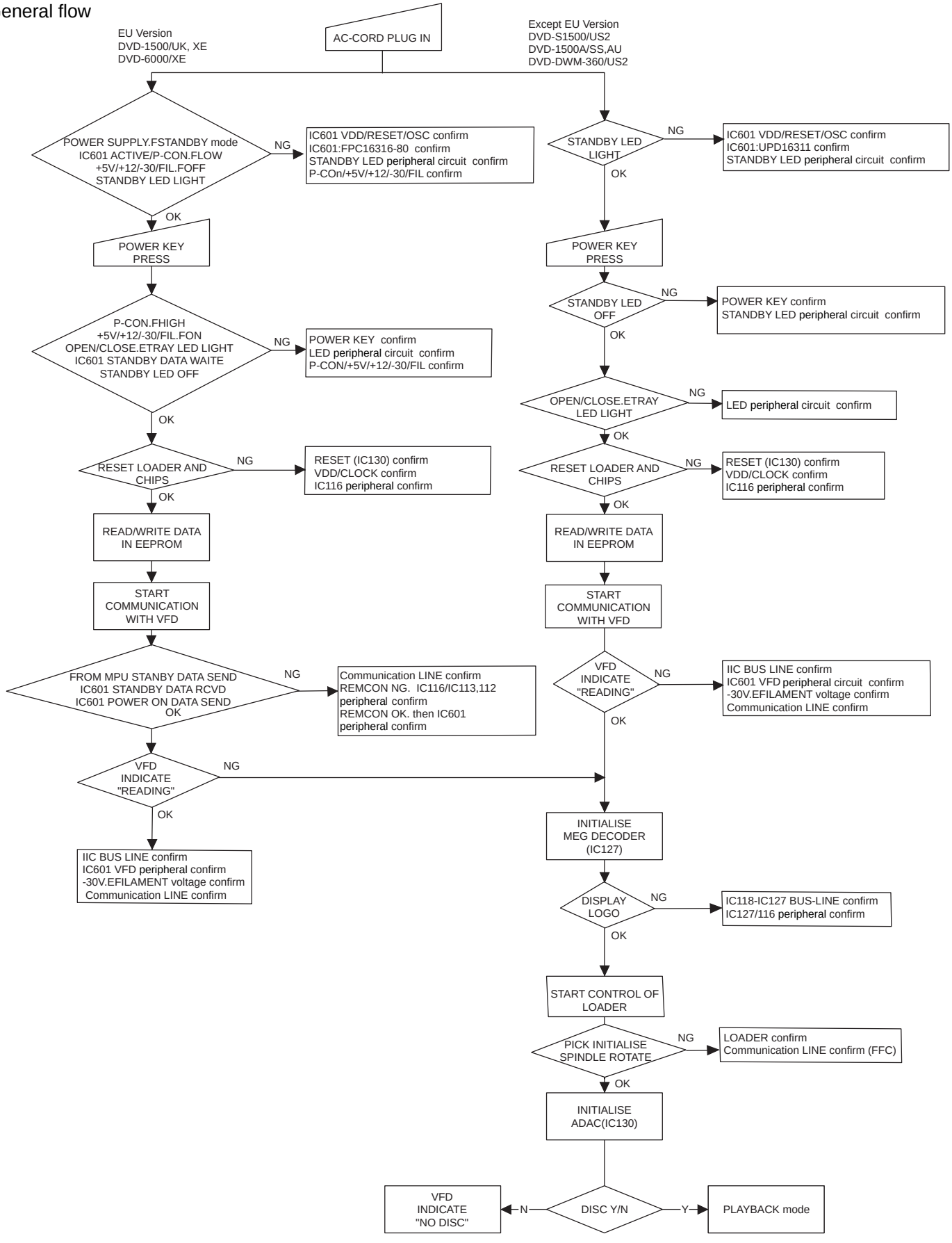
79 COMPOSITE-VIDEO



TROUBLE SHOOTING

(This is a basic trouble shooting.)

General flow

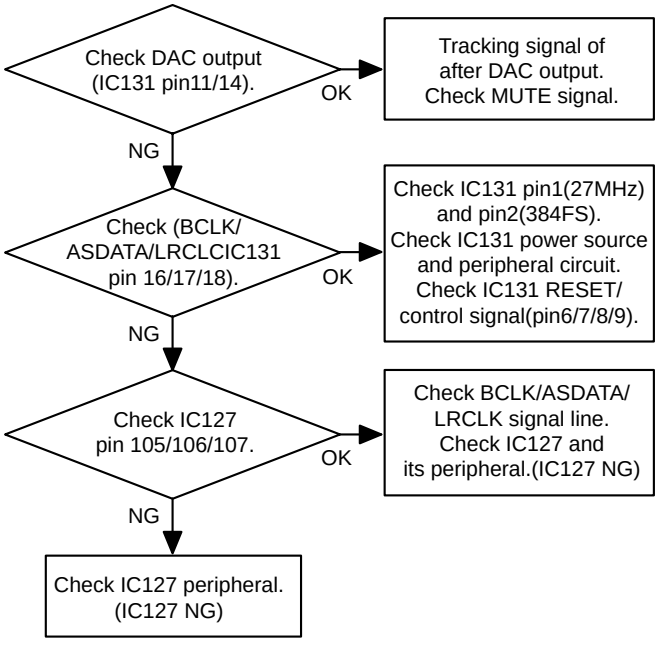


TROUBLE SHOOTING

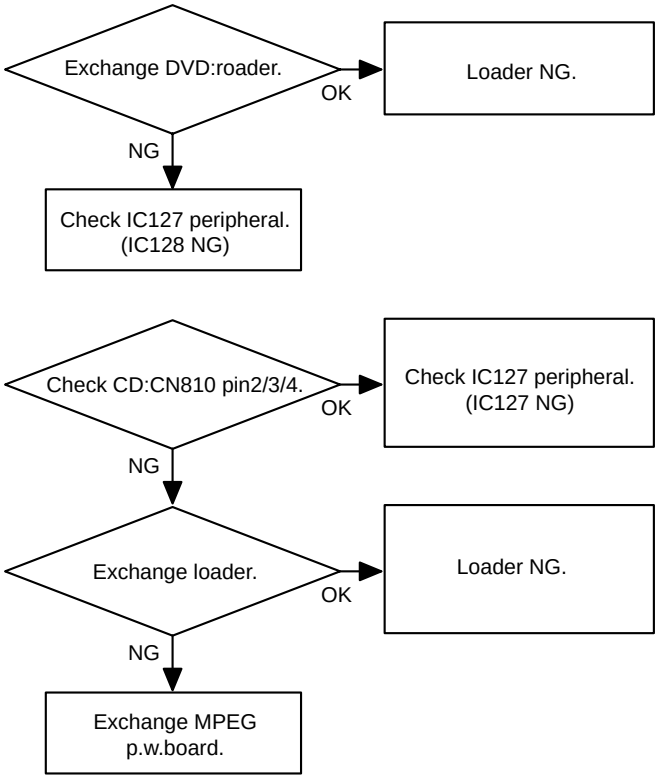
(This is a basic trouble shooting.)

AUDIO PART

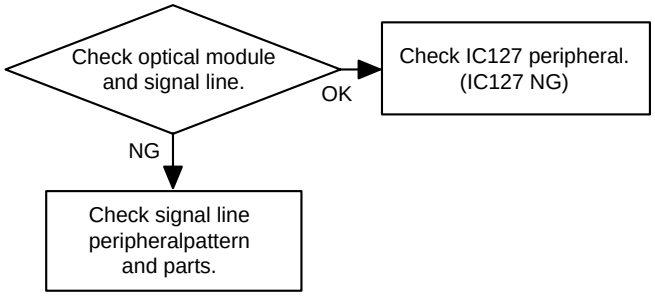
1. When time display OK and sound NG or When S/PDIF OK and analogue NG.


Check DAC output (IC131 pin11/14).
OK
Tracking signal of after DAC output. Check MUTE signal.
NG
Check (BCLK/ ASDATA/LRCLCIC131 pin 16/17/18).
OK
Check IC131 pin1(27MHz) and pin2(384FS). Check IC131 power source and peripheral circuit. Check IC131 RESET/ control signal(pin6/7/8/9).
NG
Check IC127 pin 105/106/107.
OK
Check BCLK/ASDATA/ LRCLK signal line. Check IC127 and its peripheral.(IC127 NG)
NG
Check IC127 peripheral. (IC127 NG)

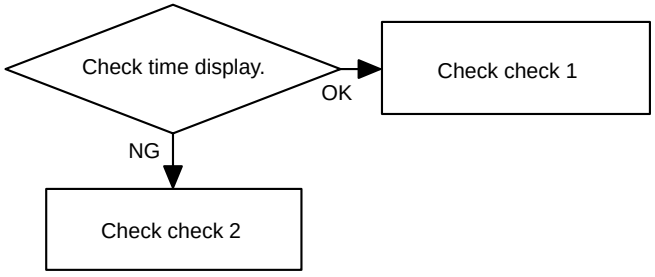
2. When time display NG and sound NG.



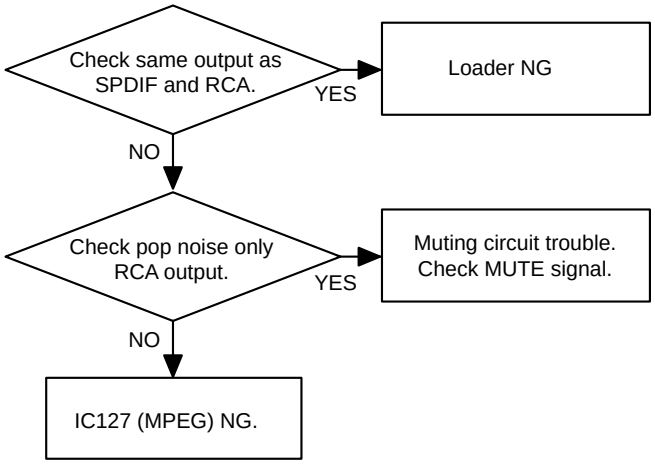
3. When S/PDIF NG and analogue OK.



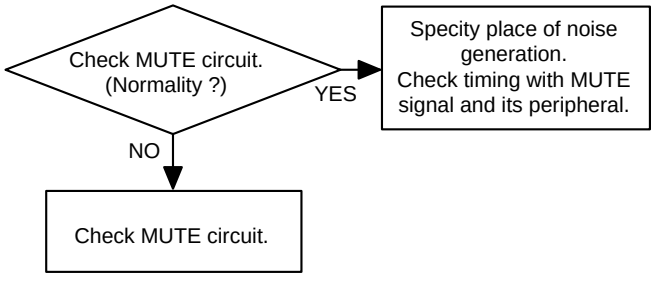
4. When S/PDIF NG and analogue NG.



5. When pop noise (when usual operate.)



6. When pop noise (Power ON/OFF).

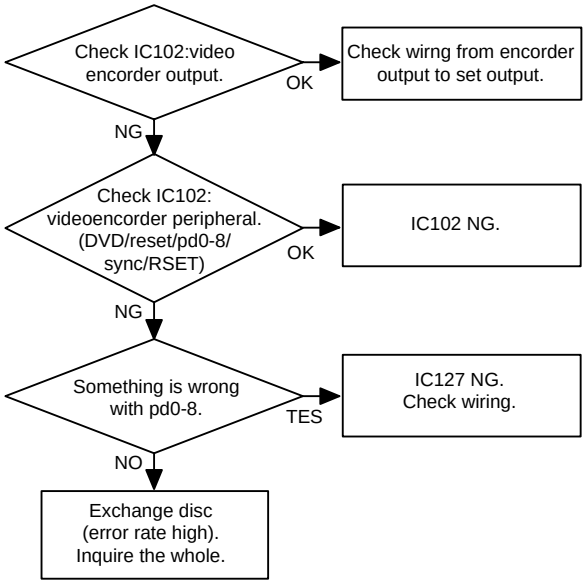

Check MUTE circuit. (Normality ?)
YES
Specity place of noise generation. Check timing with MUTE signal and its peripheral.
NO
Check MUTE circuit.

TROUBLE SHOOTING

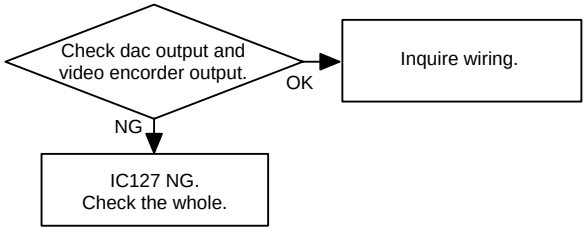
(This is a basic trouble shooting.)

VIDEO PART

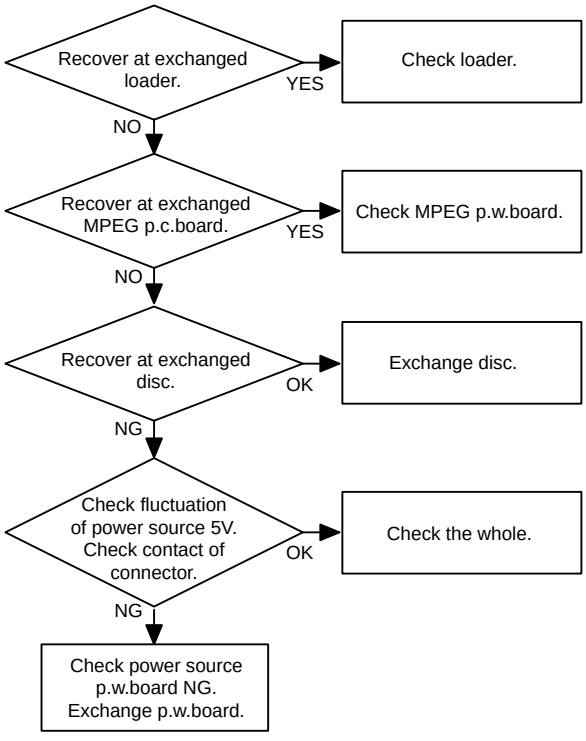
1. When sound OK and picture NG.



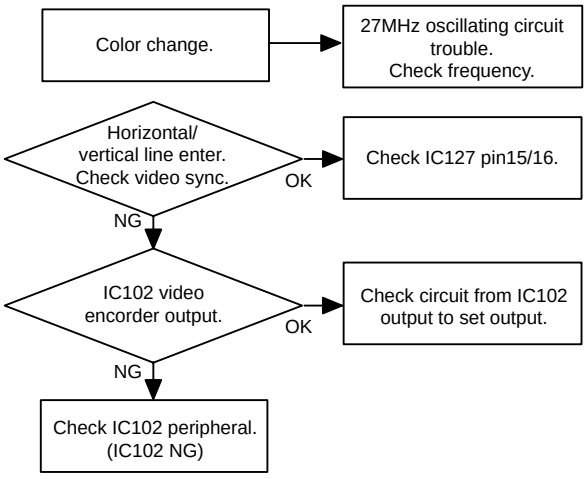
2. When sound and picture NG and display OK.



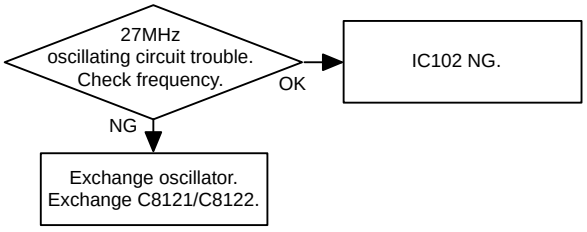
3. When confusion of the picture.



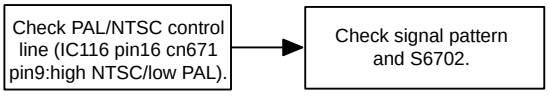
4. When confusion of the picture.



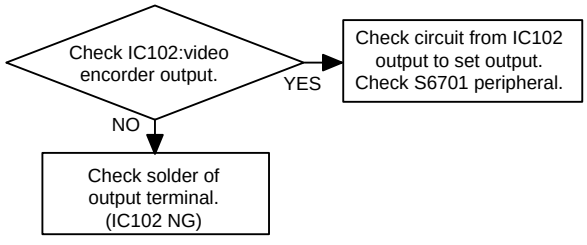
5. When color NG.



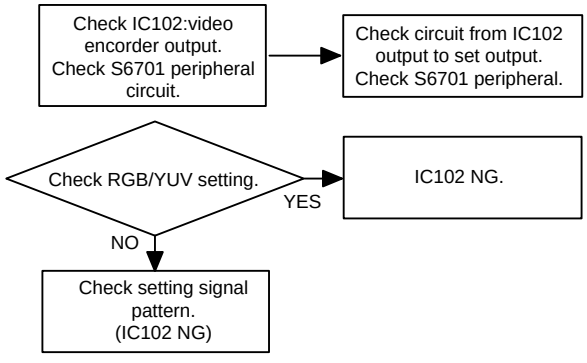
6. when not change to PAL or NTSC.



7. When s-terminal output NG and color NG.


Check IC102:video encorder output.
YES
Check circuit from IC102 output to set output. Check S6701 peripheral.
NO
Check solder of output terminal. (IC102 NG)

8. When YUV/RGB NG and color NG.


Check IC102:video encorder output. Check S6701 peripheral circuit.
Check circuit from IC102 output to set output. Check S6701 peripheral.
Check RGB/YUV setting.
YES
IC102 NG.
NO
Check setting signal pattern. (IC102 NG)

VOLTAGE OF IC & TRANSISTOR

1. MPEG part

IC101 (V)

Pin No.	1	2	3	4	5	6	7	8
Power OFF	0V	0V	0V	0V	3.3V	3.3V	0V	3.3V
Power ON	0V	0V	0V	0V	3.3V	3.3V	0V	3.3V

IC102 (V)

Pin No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Power OFF	3.3V	0V	0V	0V	3.3V	3.3V	3.3V	3.3V	3.3V	0V	3.3V	3.3V	3.3V	3.3V	0.3V	0.3V
Power ON	3.3V	0.5V	0.4V	1.5V	3.3V	3.3V	3.3V	3.3V	3.3V	0V	3.3V	3.3V	3.3V	3.3V	3.3V	3.3V
Pin No.	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**	**31**	**32**
Power OFF	3.3V	3.3V	0V	3.3V	0V	0V	3.3V	3.3V	1.4V	0V	0V	3.3V	0V	3.3V	0. 5V	0V
Power ON	2.5V	3.3V	0V	3.3V	0V	3.3V	3.3V	3.3V	1.4V	1V	0.9V	3.3V	0V	3.3V	1.1V	0.5V
Pin No.	**33**	**34**	**35**	**36**	**37**	**38**	**39**	**40**	**41**	**42**	**43**	**44**				
Power OFF	1.2V	1.2V	0V	0V	3.3V	0V	0V	0V	0V	0V	0V	1.7V				
Power ON	1.3V	1.3V	0V	0V	3.2V	0.5V	0.5V	0.5V	0.5V	1.7V	0V	1.7V				

IC103 (V)

Pin No.	1	2	3
Power OFF	4.9V	0V	2.5V
Power ON	4.9V	0V	2.5V

IC104 (V)

Pin No.	1	2	3
Power OFF	4.9V	0V	3.3V
Power ON	4.9V	0V	3.3V

IC105 (V)

Pin No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Power OFF	4.9V	0V	1.6V	4.9V	0V	4.9V	0V	4.9V	0V	4.9V	1.6V	0V	4.9V	4.9V
Power ON	4.9V	0V	1.6V	4.9V	0V	4.9V	0V	4.9V	0V	4.9V	1.6V	0V	4.9V	4.9V

IC110 (V)

Pin No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Power OFF	3.3V	---	---	0V	0.4V	0.4V	3.3V	0.4V	0.4V	0V	0.4V	0.4V	3.3V	0V	3.3V	3.3V
Power ON	3.3V	---	---	0V	---	---	3.3V	---	---	0V	---	---	3.3V	0V	3.3V	3V
Pin No.	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**	**31**	**32**
Power OFF	3.3V	3.3V	0V	0V	0V	0V	0V	0V	3.3V	0V	0V	0V	0V	0V	0V	0V
Power ON	3.1V	3.1V	0.2V	0V	0V	0V	0.2V	0.2V	3.3V	0V	0.2V	0.2V	0.2V	0.2V	0V	0V
Pin No.	**33**	**34**	**35**	**36**	**37**	**38**	**39**	**40**	**41**	**42**	**43**	**44**	**45**	**46**	**47**	**48**
Power OFF	0V	3.3V	1.6V	0V	0V	3.3V	---	---	0V	---	---	3.3V	---	---	0V	---
Power ON	0V	3.3V	1.6V	0V	0V	3.3V	---	---	0V	---	---	3.3V	---	---	0V	---
Pin No.	**49**	**50**														
Power OFF	---	0V														
Power ON	---	0V														

IC111 (V)

Pin No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Power OFF	3.3V	---	---	0V	---	---	3.3V	---	---	0V	---	---	3.3V	0V	3.3V	3.3V
Power ON	3.3V	---	---	0V	---	---	3.3V	---	---	0V	---	---	3.3V	0V	3.3V	3V
Pin No.	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**	**31**	**32**
Power OFF	3.3V	3.3V	0V	0V	0V	0V	0V	0V	3.3V	0V	0V	0V	0V	0V	0V	0V
Power ON	3.1V	3V	0.2V	0V	0V	0V	0.2V	0.2V	3.3V	0V	0.2V	0.2V	0.2V	0.2V	0V	0V
Pin No.	**33**	**34**	**35**	**36**	**37**	**38**	**39**	**40**	**41**	**42**	**43**	**44**	**45**	**46**	**47**	**48**
Power OFF	0V	3.3V	1.6V	0V	0V	3.3V	---	---	0V	---	---	3.3V	---	---	0V	---
Power ON	0V	3.3V	1.6V	0V	0V	3.3V	---	---	0V	---	---	3.3V	---	---	0V	---
Pin No.	**49**	**50**														
Power OFF	---	0V														
Power ON	---	0V														

IC112 (V)

Pin No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Power OFF	0V	0.1V	3.3V	3.3V	0V	0.1V	3.3V	4.8V	0V	0V	0.1V	3.3V	4.9V	0V	0V	3.3V
Power ON	0V	0.1V	3.3V	2.8V	3.3V	0.1V	3.3V	4.8V	0V	0V	0.1V	3.3V	4.9V	0V	3.3V	3.3V
Pin No.	**17**	**18**	**19**	**20**												
Power OFF	4.9V	0V	0V	3.3V												
Power ON	3.3V	4.9V	0V	3.3V												

VOLTAGE OF IC & TRANSISTOR

IC113

(V)

Pin No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Power OFF	0V	0V	0V	0V	4.9V	0V	4.9V	0V	4.6V	0V	3.2V	0V	3.2V	0V	3.3V	0V
Power ON	0V	0V	0V	0V	4.9V	0V	4.9V	0V	4.6V	0V	3.2V	0V	3.3V	0V	3.3V	0V
Pin No.	**17**	**18**	**19**	**20**												
Power OFF	0V	0V	0V	4.9V												
Power ON	0V	0V	0V	4.9V												

IC116

(V)

Pin No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Power OFF	0V	2.5V	3.3V	0V	0V	0V	0V	0V	0V	0V	0V	3.3V	3.3V	3.3V	3.3V	3.3V
Power ON	0V	2.5V	3.3V	0V	0V	0V	0V	0V	0V	0V	0V	3.3V	3.3V	3.3V	0V	3.3V
Pin No.	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**	**31**	**32**
Power OFF	3.3V	3.3V	0V	3.3V	3.3V	0V	3.3V	3.3V	3.3V	0V	0V	3.3V	0V	0V	0V	0V
Power ON	3.3V	3.3V	0V	3.3V	3.3V	0V	3.3V	3.3V	3.3V	0V	0V	3.3V	0V	0V	0V	0V
Pin No.	**33**	**34**	**35**	**36**	**37**	**38**	**39**	**40**	**41**	**42**	**43**	**44**	**45**	**46**	**47**	**48**
Power OFF	0V	0V	3.3V	3.3V	0V	3.3V	2.5V	0V	3.3V	0V	3.1V	0V	0.6V	3.1V	3.3V	2.7V
Power ON	0V	0V	3.3V	3.3V	3.3V	3.3V	2.5V	0V	3.3V	0V	3.1V	0V	**不定**	3.2V	3.3V	2.7V
Pin No.	**49**	**50**	**51**	**52**	**53**	**54**	**55**	**56**	**57**	**58**	**59**	**60**	**61**	**62**	**63**	**64**
Power OFF	0V	0V	0V	2.5V	2.5V	0V	1.6V	3.3V	0V	3.3V	3.3V	3.3V	0V	3.3V	3.3V	3.3V
Power ON	0V	0V	0V	2.5V	2.5V	0V	1.6V	3.2V	3.3V	3.3V	3.3V	0V	0V	3.3V	3.3V	3.3V
Pin No.	**65**	**66**	**67**	**68**	**69**	**70**	**71**	**72**	**73**	**74**	**75**	**76**	**77**	**78**	**79**	**80**
Power OFF	0V	0V	0.5V	0V	0V	3.3V	3.3V	0V	0V	3.3V	3.3V	3.3V	3.3V	3.3V	3.3V	3.3V
Power ON	0V	0V	3.3V	0V	0V	0V	3.3V	0V	0V	3.3V	3.1V	3.3V	3.3V	3.3V	3.2V	3.3V
Pin No.	**81**	**82**	**83**	**84**	**85**	**86**	**87**	**88**	**89**	**90**	**91**	**92**	**93**	**94**	**95**	**96**
Power OFF	0V	2.5V	0V	3.3V	0V	0V	0V	3.3V	3.3V	3.3V	3.3V	3.3V	0V	3.3V	3.3V	0V
Power ON	0V	2.5V	3.3V	3.3V	0V	3.3V	0V	3.3V	3.3V	3.3V	3.3V	0V	3.3V	3.2V	3.3V	0V
Pin No.	**97**	**98**	**99**	**100**	**101**	**102**	**103**	**104**	**105**	**106**	**107**	**108**	**109**	**110**	**111**	**112**
Power OFF	3.3V	0V	3.3V	0V	3.3V	0.4V	0V	0.6V	0.5V	0.5V	0.6V	0.5V	0V	3.3V	0.5V	0V
Power ON	3.3V	0V	3.3V	0V	2.7V	---	---	---	---	---	---	---	0V	3.3V	---	0V
Pin No.	**113**	**114**	**115**	**116**	**117**	**118**	**119**	**120**	**121**	**122**	**123**	**124**	**125**	**126**	**127**	**128**
Power OFF	3.3V	3.3V	3.3V	3.3V	3.3V	0V	0V	3.3V	0V	2.5V	1.6V	0V	---	---	---	---
Power ON	3.3V	3.3V	3.3V	3.3V	3.3V	0V	0V	3.3V	0V	2.5V	1.6V	0V	---	---	---	---
Pin No.	**129**	**130**	**131**	**132**	**133**	**134**	**135**	**136**	**137**	**138**	**139**	**140**	**141**	**142**	**143**	**144**
Power OFF	---	0V	3.3V	---	---	0.6V	3.3V	3.3V	3.3V	3.3V	3.3V	0V	3.3V	0.1V	3.3V	0V
Power ON	---	0V	3.3V	---	---	1.1V	3.3V	3.3V	3.1V	3.1V	3.1V	0V	3.3V	0V	3.2V	0V
Pin No.	**145**	**146**	**147**	**148**	**149**	**150**	**151**	**152**	**153**	**154**	**155**	**156**	**157**	**158**	**159**	**160**
Power OFF	0V	0V	0V	0V	0V	0V	3.3V	0V	0V	0V	0V	0V	0V	0V	0V	3.3V
Power ON	0V	0V	0V	0V	0V	0V	3.3V	0V	0V	0V	0V	0V	0V	0V	0V	3.3V

IC117

(V)

Pin No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Power OFF	3.3V	---	---	0V	---	---	3.3V	---	0.3 **V**	0V	0.3 **V**	0.3 **V**	3.3V	0V	2.1V	2.6V
Power ON	3.3V	---	---	0V	---	---	3.3V	---	---	0V	---	---	3.3V	0V	3.3V	3.2V
Pin No.	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**	**31**	**32**
Power OFF	2.5V	11.9V	0V	0V	2.3V	2.4V	0.8V	1.7V	3.3V	0V	3.2V	1.7V	1.5V	3.1V	1.8V	0V
Power ON	3.3V	3.2V	0.2V	0.1V	3.1V	3.2V	3.1V	0V	3.3V	0V	0 **V**	0.2 **V**	3.3V	0V	0V	0V
Pin No.	**33**	**34**	**35**	**36**	**37**	**38**	**39**	**40**	**41**	**42**	**43**	**44**	**45**	**46**	**47**	**48**
Power OFF	0V	3.3V	1.6V	0V	0V	3.3V	---	---	0V	---	---	3.3V	---	---	0V	---
Power ON	0V	3.3V	1.6V	0V	0V	3.3V	---	---	0V	---	---	3.3V	---	---	0V	---
Pin No.	**49**	**50**														
Power OFF	---	0V														
Power ON	---	0V														

IC118

(V)

Pin No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Power OFF	0V	---	0V	0V	0.1V	3.2V	0V	---	3.3V	0V	0V	0V	0V	0V	0V	0V
Power ON	0.1V	---	0.1V	0.1V	0.1V	3.1 **V**	0.1V	---	3.3V	0.1V	0V	0.1V	0.1V	3.3V	0.1V	0V
Pin No.	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**	**31**	**32**
Power OFF	0V	---	3.1V	3.2V	0.1V	0.1V	0V	0.1V	0V	0.1V	0V	0V	---	---	---	---
Power ON	0V	0V	0V	3.3V	0V	0.1V	0V	3.3V	3.3V	3.3V	0V	3.2V	---	---	---	---
Pin No.	**33**	**34**	**35**	**36**	**37**	**38**	**39**	**40**	**41**	**42**	**43**	**44**	**45**	**46**	**47**	**48**
Power OFF	---	---	---	---	3.3V	0V	---	---	---	---	---	---	---	---	0V	0V
Power ON	---	---	---	---	3.3V	0V	---	---	---	---	---	---	---	---	0 **V**	0.1V

VOLTAGE OF IC & TRANSISTOR

IC127

(V)

Pin No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Power OFF	0V	---	---	---	---	3.3V	---	---	---	---	0V	3.3V	3.3V	3.3V	3.3V	3.3V
Power ON	0V	---	---	---	---	3.3V	---	---	---	---	0V	3.3V	0V	3.3V	0V	3.3V
Pin No.	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**	**31**	**32**
Power OFF	3.3V	3.3V	3.3V	0V	3.3V	0V	0V	3.3V	3.3V	3.3V	3.3V	0V	3.3V	3.3V	0V	0V
Power ON	0V	0V	3.3V	0V	3.3V	0V	0V	3.3V	3.3V	3.3V	3.3V	0V	3.3V	0V	0V	0V
Pin No.	**33**	**34**	**35**	**36**	**37**	**38**	**39**	**40**	**41**	**42**	**43**	**44**	**45**	**46**	**47**	**48**
Power OFF	0V	---	3.1V	3.2V	0.1V	3.2V	3.2V	3.3V	0.1V	3.3V	3.3V	3.3V	3.3V	0V	---	---
Power ON	0V	0V	3.3V	0V	3.3V	0V	0V	3.3V	0V	3.3V	3.3V	3.1V	3V	0V	---	---
Pin No.	**49**	**50**	**51**	**52**	**53**	**54**	**55**	**56**	**57**	**58**	**59**	**60**	**61**	**62**	**63**	**64**
Power OFF	---	---	---	---	---	---	0V	1.7V	0V	3.3V	0V	0V	3.3V	---	0V	3.3V
Power ON	---	---	---	---	---	---	0V	1.6V	3.3V	3.3V	0V	0V	3.3V	---	3.2V	3.3V
Pin No.	**65**	**66**	**67**	**68**	**69**	**70**	**71**	**72**	**73**	**74**	**75**	**76**	**77**	**78**	**79**	**80**
Power OFF	3.3V	0V	3.3V	3.3V	0.6V	0.7V	3.3V	0V	0V	0V	0V	0V	0V	0V	3.3V	0V
Power ON	3.3V	0V	3.3V	3.3V	3.3V	3.3V	3.3V	0V	0.5V	0.5V	0V	0.5V	0.5V	1.7V	3.3V	0V
Pin No.	**81**	**82**	**83**	**84**	**85**	**86**	**87**	**88**	**89**	**90**	**91**	**92**	**93**	**94**	**95**	**96**
Power OFF	0V	0V	0V	0V	0V	0V	3.3V	0V	0V	0V	0V	0V	3.3V	3.3V	3.3V	3.3V
Power ON	0V	0.5V	0.4V	1.5V	0V	0.7V	0.8V	0V	0V	0V	0V	0V	3.3V	1.7V	17V	1.7V
Pin No.	**97**	**98**	**99**	**100**	**101**	**102**	**103**	**104**	**105**	**106**	**107**	**108**	**109**	**110**	**111**	**112**
Power OFF	0V	1.1V	1.6V	0V	0V	1.6V	0V	3.3V	0V	0V	0V	0V	0V	0V	0V	0V
Power ON	0V	1.1V	1.6V	0V	0V	1.6V	1.7V	3.3V	1.6V	1.6V	0V	0V	0V	0V	1.6V	0V
Pin No.	**113**	**114**	**115**	**116**	**117**	**118**	**119**	**120**	**121**	**122**	**123**	**124**	**125**	**126**	**127**	**128**
Power OFF	0V	0V	3.3V	0V	3.3V	3.3V	---	---	0V	---	0V	---	---	---	3.3V	---
Power ON	0V	0V	3.3V	0V	3.3V	3.3V	---	---	0V	---	0V	---	---	---	3.3V	---
Pin No.	**129**	**130**	**131**	**132**	**133**	**134**	**135**	**136**	**137**	**138**	**139**	**140**	**141**	**142**	**143**	**144**
Power OFF	---	1.6V	0V	0V	0V	0V	3.3V	0V	0V	0V	0V	0V	0V	0V	3.3V	0V
Power ON	---	1.6V	0V	0V	0V	0.2	3.3V	0.2V	0.2V	0.2V	0V	0.2V	0.2V	0V	3.3V	0V
Pin No.	**145**	**146**	**147**	**148**	**149**	**150**	**151**	**152**	**153**	**154**	**155**	**156**	**157**	**158**	**159**	**160**
Power OFF	0V	0V	0V	3.3V	3.3V	3.3V	3.3V	3.3V	3.3V	0V	0V	3.3V	0V	0V	3.3V	0V
Power ON	0V	0.2V	0V	3.1V	3V	3.1V	3.3V	3V	3.3V	0V	0V	3.3V	0V	0V	3.3V	0V

IC130

(V)

Pin No.	1	2	3
Power OFF	0V	4.9V	3.3V
Power ON	0V	4.9V	3.3V

IC131

(V)

Pin No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Power OFF	1.6V	5V	5V	0V	1V	3.3V	3.3V	3.3V	0V	0V	2.5V	0V	5V	2.5V	2.5V	0V
Power ON	1.7V	2.1V	5V	0V	1V	3.3V	3.3V	0V	3.3V	0V	2.5V	0V	5V	2.5V	2.5V	1.6V
Pin No.	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**								
Power OFF	0V	0V	0V	1V	5V	0V	0V	0V								
Power ON	0V	1.6V	0V	0.8V	5V	0V	0V	0V								

IC132

(V)

Pin No.	1	2	3	4	5	6	7	8
Power OFF	6.6V	3.6V	3.5V	0V	3.5V	3.6V	6.6V	11.1V
Power ON	6.6V	3.6V	3.5V	0V	3.5V	3.6V	6.6V	11.1V

IC133

(V)

Pin No.	1	2	3	4	5
Power OFF	5V	5V	0V	3.3V	3.3V
Power ON	2.2V	2.2V	0V	1.7V	3.3V

IC135

(V)

Pin No.	1	2	3	4	5
Power OFF	2.4V	2.4V	0V	1.6V	3.3V
Power ON	2.4V	2.4V	0V	1.6V	3.3V

IC136

(V)

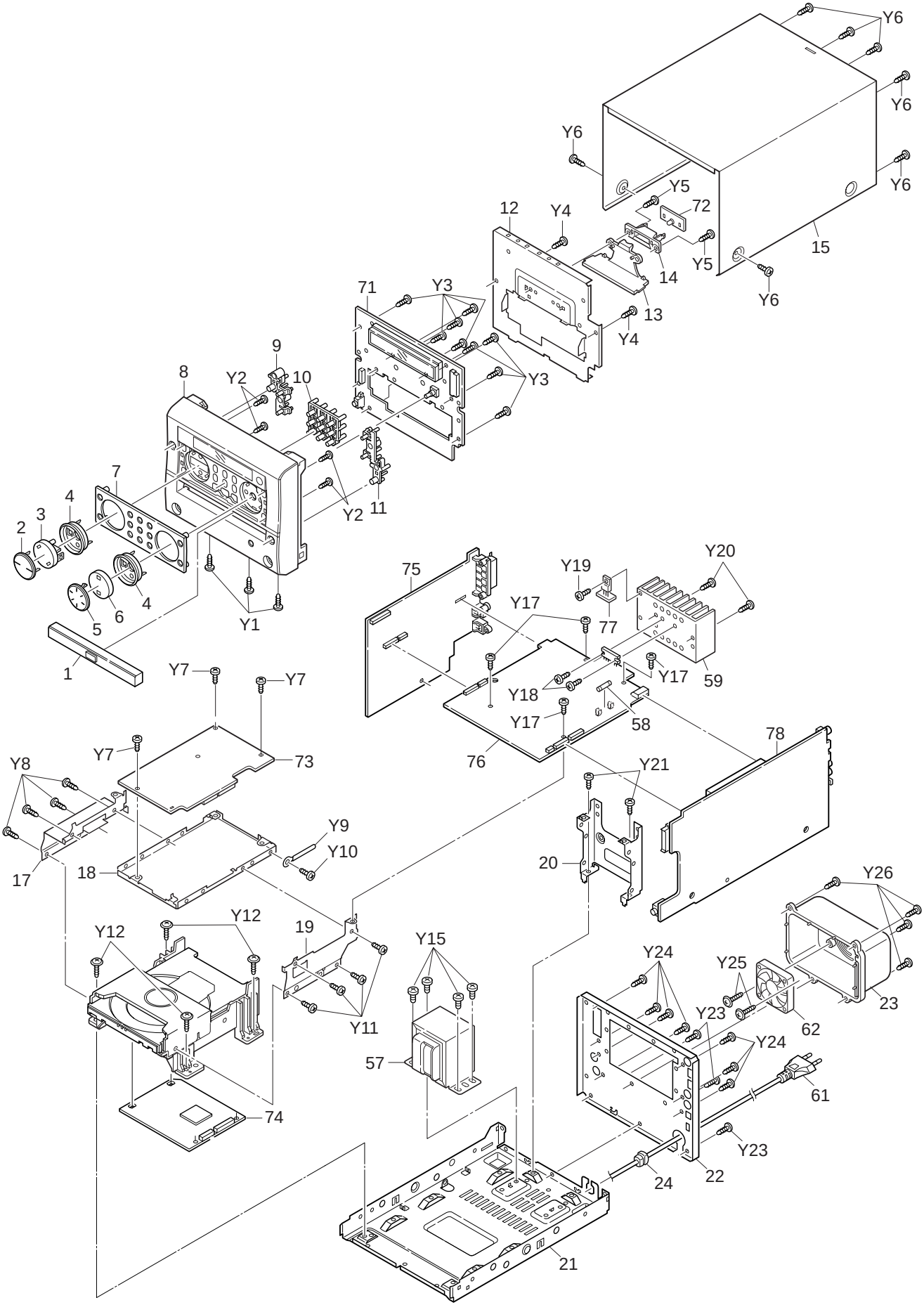
Pin No.	1	2	3	4	5
Power OFF	---	0V	0V	2.5V	3.3V
Power ON	---	---	0V	2.5V	3.3V

IC137

(V)

Pin No.	1	2	3	4	5
Power OFF	0V	0V	0V	0V	3.3V
Power ON	1.6V	1.6V	0V	1.6V	3.3V

EXPLODED VIEW (CABINET & CHASSIS)



PARTS LIST

PRODUCT SAFETY NOTICE

EACH PRECAUTION IN THIS MANUAL SHOULD BE FOLLOWED DURING SERVICING. COMPONENTS IDENTIFIED WITH THE IEC SYMBOL ⚠ IN THE PARTS LIST AND THE SCHEMATIC DIAGRAM DESIGNATED COMPONENTS IN WHICH SAFETY CAN BE OF SPECIAL SIGNIFICANCE. WHEN REPLACING A COMPONENT IDENTIFIED BY ⚠, USE ONLY THE REPLACEMENT PARTS DESIGNATED, OR PARTS WITH THE SAME RATINGS OF RESISTANCE, WATTAGE OR VOLTAGE THAT ARE DESIGNATED IN THE PARTS LIST IN THIS MANUAL. LEAKAGE-CURRENT OR RESISTANCE MEASUREMENTS MUST BE MADE TO DETERMINE THAT EXPOSED PARTS ARE ACCEPTABLY INSULATED FROM THE SUPPLY CIRCUIT BEFORE RETURNING THE PRODUCT TO THE CUSTOMER.

CAUTION : Regular type resistors and capacitors are not listed. To know those values, refer to the schematic diagram.
Regular type resistors are less than 1/4 W carbon type and 0 ohm chip resistors.
Regular type capacitors are less than 50 V and less than 1000 µF type of Ceramic type and Electrical type.

PACKING & ACCESSORIES

REF.NO.	PART NO.	DESCRIPTION
	614 176 2302	INNER POLYE COVER,AC CORD
	614 315 0794	CARTON CASE,SET(KR)
	614 315 9711	CARTON CASE,SET(SS)
	614 315 7120	CUSHION,SPACE,PAD
	614 315 0855	CUSHION,FRONT
	614 315 0862	CUSHION,REAR
	614 315 0879	INSTRUCTION MANUAL(KR)
	614 315 9742	INSTRUCTION MANUAL(SS)
	645 011 9736	POLY BAG-0250X0350*NC, INST&ACCESSORY
	645 041 1526	POLY SHEET-0750X0500*NC,SET
	645 005 1227	ASSY,ANTENA,LOOP
	614 245 0055	ANTENNA,FM ANT
	645 044 0052	REMOCON,RB-DAV821
	645 044 9444	BATTERY COVER,SERVICE PART
	645 041 1373	CABLE,VIDEO,VIDEO-CABLE(1.5M)
	645 006 4630	PLUG,ADAPTOR AC,(SS)
or	645 017 2175	PLUG,ADAPTOR AC,(SS)

CABINET & CHASSIS

REF.NO.	PART NO.	DESCRIPTION
1	614 315 6598	ASSY,DEC ESCUTCHEON,TRAY
2	614 314 6957	BUTTON,PLAY/STOP
3	614 314 6971	DEC,WINDOW BUTTON PLAY, PLAY/STOP
4	614 314 6933	DEC,RING R,RING L&R
5	614 314 6940	KNOB,JOG,VOLUME
6	614 314 6964	DEC,WINDOW JOG VOLUME
7	614 314 6919	DEC,ESCUTCHEON,BUTTON,PANEL
8	614 315 8325	ASSY,CABINET,FRONT(SS)
8	614 315 0671	ASSY,CABINET,FRONT(KR)
9	614 314 7015	BUTTON,POWER&ECO&PAUSE
10	614 314 7022	BUTTON,TUNER&MEMORY&SKIP
11	614 314 7039	BUTTON,OPEN/CLOSE&SOUND
12	614 314 7091	SHIELD,FRONT SIDE SHIELD
13	614 314 7053	DEC,WINDOW TRAY LED, TRAY LIGHTING
14	614 314 7183	MOUNTING,LED,TRAY LED FIX
15	614 315 6925	ASSY,CABINET,BENDING, AFTER BENDING
17	614 314 7138	MOUNTING,MPEG L,MPEG ASST L
18	614 314 7107	SHIELD,MPEG BOTTOM, MPEG PWB,BOTTOM
19	614 314 7145	MOUNTING,MPEG R,MPEG ASST R
20	614 314 7121	MOUNTING,HEAT SINK&PWG FIX
21	614 316 1615	ASSY,CABINET BOTTOM(SS)
21	614 316 1608	ASSY,CABINET BOTTOM(KR)
22	614 314 6896	CABINET,REAR
23	614 314 7060	COVER,HEAT SINK
24	614 129 1901	FIXER,AC CORD
or	614 284 1884	FIXER,AC CORD

FIXING PARTS

REF.NO.	PART NO.	DESCRIPTION
Y1	411 021 3503	SCR S-TPG BIN 3X10, FRONT-BOTTOM FIX
Y2	411 021 1202	SCR S-TPG BIN 2X8, FRONT-DEC ESCUTCHEON
Y3	411 021 3503	SCR S-TPG BIN 3X10,FRONT PWB FIX
Y4	411 021 3503	SCR S-TPG BIN 3X10, FRONT SHIELD FIX
Y5	411 021 3503	SCR S-TPG BIN 3X10, MOUNTING LED FIX
Y6	411 098 4205	SCR S-TPG BIN 3X8,CABINET
Y7	411 021 6405	SCR S-TPG BIN 3X8,MPEG PWB
Y8	411 021 6405	SCR S-TPG BIN 3X8,MPEG ASSY FIX
Y9	411 021 6405	SCR S-TPG BIN 3X8,MPEG ASSY-LUG
Y10	411 021 6405	SCR S-TPG BIN 3X8, MPEG SHIELD BOTTOM
Y11	411 021 6405	SCR S-TPG BIN 3X8, MECHA-MOUNT L&R
Y12	411 020 9803	SCR S-TPG BRZ+FLG 3X6, MECHA-BOTTOM
Y15	411 001 3905	SCR S-TPG BIN 4X6,TRANS
Y17	411 021 3503	SCR S-TPG BIN 3X10, POWER PWB-MOUNT
Y18	411 021 3503	SCR S-TPG BIN 3X10, HEAT SINK-POWER IC
Y19	411 021 6405	SCR S-TPG BIN 3X8,POWER-IC,LA4485
Y20	411 021 3503	SCR S-TPG BIN 3X10,IC-HEAT SINK
Y21	411 021 6405	SCR S-TPG BIN 3X8, HEAT SINK-MOUNT
Y23	411 021 3701	SCR S-TPG BIN 3X10,REAR-BOTTOM
Y24	411 021 3701	SCR S-TPG BIN 3X10, REAR-ELECT PARTS
Y25	412 003 1906	SPECIAL SCREW,FAN FIX
Y26	411 021 3701	SCR S-TPG BIN 3X10,COVER FIX

ELECTRIC-PARTS

REF.NO.	PART NO.	DESCRIPTION
57	⚠ 645 043 6420	TRANS,POWER(SS)
57	⚠ 645 043 9964	TRANS,POWER(KR)
58	⚠ 423 028 7903	FUSE 250V 0.5A
or	⚠ 423 016 9704	FUSE 250V 0.5A
58	⚠ 423 028 8207	FUSE 250V 1A(SS)
or	⚠ 423 017 0007	FUSE 250V 1A(SS)
59	⚠ 614 314 7152	HEAT SINK,POWER AMP , LA4663
61	⚠ 645 016 9939	CORD,POWER-1.74MK(SS)
or	⚠ 614 255 2513	POWER CORD(SS)
61	⚠ 645 039 2528	CORD,POWER-1.75MK(KR)
62	645 045 6930	MOTOR,FAN DC 0.72W
	614 316 3770	COVER,SHIELD,FOR SHIELD, MPEG TOP
	614 314 7114	SHIELD,MPEG TOP,MPEG PWB,TOP
	614 314 7190	SHIELD,MOUNT,MPEG MOUNT
	614 315 9926	COVER,VOLTAGE SELECTOR(SS)
	614 315 0275	ASSY,WIRE,POWER-LODER 6P
	614 315 0282	ASSY,WIRE,POWER-MPEG 9P

PARTS LIST

SPEAKER SYSTEM

REF.NO.	PART NO.	DESCRIPTION
	614 315 8301	ASSY,BOX,SPEAKER(SS)
	614 315 1029	ASSY,BOX,SPEAKER(KR)
	614 315 1036	ASSY,GRILLE

FRONT P.W.BOARD ASSY

REF.NO.	PART NO.	DESCRIPTION
71	614 314 7619	ASSY,PWB,FRONT(Only initial)
BR601	614 314 6988	MOUNTING,FL,FL_MOUNT
CN601	645 009 0110	PLUG,24P
CN602	614 035 4911	SOCKET,DIP 2P
or	645 012 7786	SOCKET,DIP 2P
CN613	614 315 0336	ASSY,WIRE,FRONT-MPEG
CN682	645 012 0008	JACK,PHONE D3.6
D6001	407 012 4406	DIODE 1SS133
D6002	407 012 4406	DIODE 1SS133
D6003	407 012 4406	DIODE 1SS133
D6007	407 099 4603	ZENER DIODE MTZJ3.9B
D6850	407 212 8907	LED HLMP-BB01-J0B00,BLUE
D6851	407 212 8907	LED HLMP-BB01-J0B00,BLUE
D6852	407 212 8907	LED HLMP-BB01-J0B00,BLUE
D6853	407 212 8907	LED HLMP-BB01-J0B00,BLUE
D6870	408 032 5404	LED SLP-9118C-51H-S-T1, STAND_BY_LED
DS601	407 220 6803	PHOTO DIODE SPS-444-1-G1,IR
FL601	645 043 7311	FLOURESCENT TUBE,FL
IC601	410 394 8603	IC LC866540A-5T36,MICON
L6000	645 001 4550	INDUCTOR,10U K
or	645 031 7835	INDUCTOR,10U K
Q6001	405 146 2107	TR KTC3875-Y
or	405 146 2206	TR KTC3875-GR
or	405 014 4509	TR 2SC2412K-R
or	405 011 1006	TR 2SC1623-L6
Q6002	405 146 1704	TR KTA1504-Y
or	405 146 9700	TR KTA1504-GR
or	405 005 5508	TR 2SA812-M6
Q6003	405 146 1704	TR KTA1504-Y
or	405 146 9700	TR KTA1504-GR
or	405 005 5508	TR 2SA812-M6
Q6005	405 146 2107	TR KTC3875-Y
or	405 146 2206	TR KTC3875-GR
or	405 014 4509	TR 2SC2412K-R
or	405 011 1006	TR 2SC1623-L6
Q6006	405 146 2107	TR KTC3875-Y
or	405 146 2206	TR KTC3875-GR
or	405 014 4509	TR 2SC2412K-R
or	405 011 1006	TR 2SC1623-L6
R6000	401 105 0603	MT-GLAZE 10K JA 1/16W
R6001	401 105 0702	MT-GLAZE 100K JA 1/16W
R6002	401 105 5400	MT-GLAZE 47K JA 1/16W
R6003	401 177 2109	MT-GLAZE 4.7M JA 1/16W
R6004	401 105 1709	MT-GLAZE 150K JA 1/16W
R6005	401 105 5400	MT-GLAZE 47K JA 1/16W
R6006	401 105 4106	MT-GLAZE 3.3K JA 1/16W
R6007	401 105 5400	MT-GLAZE 47K JA 1/16W
R6008	401 105 0603	MT-GLAZE 10K JA 1/16W
R6009	401 105 0702	MT-GLAZE 100K JA 1/16W
R6010	401 105 0603	MT-GLAZE 10K JA 1/16W
R6011	401 105 2706	MT-GLAZE 220 JA 1/16W
R6012	401 105 5905	MT-GLAZE 560 JA 1/16W
R6015	401 105 4205	MT-GLAZE 33K JA 1/16W
R6016	401 105 4205	MT-GLAZE 33K JA 1/16W
R6017	401 105 4205	MT-GLAZE 33K JA 1/16W
R6018	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R6019	401 105 5400	MT-GLAZE 47K JA 1/16W
R6022	401 105 0702	MT-GLAZE 100K JA 1/16W
R6023	401 105 0702	MT-GLAZE 100K JA 1/16W
R6024	401 105 0702	MT-GLAZE 100K JA 1/16W
R6025	401 105 0702	MT-GLAZE 100K JA 1/16W
R6026	401 105 0603	MT-GLAZE 10K JA 1/16W
R6027	401 105 0603	MT-GLAZE 10K JA 1/16W
R6028	401 105 0603	MT-GLAZE 10K JA 1/16W
R6030	401 105 4205	MT-GLAZE 33K JA 1/16W
R6060	401 105 0603	MT-GLAZE 10K JA 1/16W
R6081	401 105 0504	MT-GLAZE 1K JA 1/16W
R6082	401 105 0504	MT-GLAZE 1K JA 1/16W
R6101	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R6102	401 105 4502	MT-GLAZE 390 JA 1/16W
R6103	401 105 5202	MT-GLAZE 470 JA 1/16W
R6104	401 105 6506	MT-GLAZE 680 JA 1/16W
R6105	401 105 7305	MT-GLAZE 820 JA 1/16W
R6106	401 105 0504	MT-GLAZE 1K JA 1/16W
R6107	401 105 1006	MT-GLAZE 1.2K JA 1/16W
R6108	401 105 2003	MT-GLAZE 1.8K JA 1/16W
R6109	401 105 3307	MT-GLAZE 2.7K JA 1/16W
R6110	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R6121	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R6122	401 105 4502	MT-GLAZE 390 JA 1/16W
R6123	401 105 5202	MT-GLAZE 470 JA 1/16W
R6124	401 105 6506	MT-GLAZE 680 JA 1/16W
R6125	401 105 7305	MT-GLAZE 820 JA 1/16W
R6126	401 105 0504	MT-GLAZE 1K JA 1/16W
R6127	401 105 1006	MT-GLAZE 1.2K JA 1/16W
R6220	401 105 5400	MT-GLAZE 47K JA 1/16W
R6221	401 105 5400	MT-GLAZE 47K JA 1/16W
R6222	401 105 5400	MT-GLAZE 47K JA 1/16W
R6761	401 105 1105	MT-GLAZE 12K JA 1/16W
R6850	401 105 6506	MT-GLAZE 680 JA 1/16W
R6851	401 105 6506	MT-GLAZE 680 JA 1/16W
R6852	401 105 6506	MT-GLAZE 680 JA 1/16W
R6853	401 105 6506	MT-GLAZE 680 JA 1/16W
R6854	401 105 6506	MT-GLAZE 680 JA 1/16W
R6861	401 105 1105	MT-GLAZE 12K JA 1/16W
R6901	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R6902	401 037 5004	MT-GLAZE 0.000 ZA 1/10W
R6903	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
R6904	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
R6905	401 037 5004	MT-GLAZE 0.000 ZA 1/10W
R6906	401 037 5004	MT-GLAZE 0.000 ZA 1/10W
R6907	401 037 5004	MT-GLAZE 0.000 ZA 1/10W
R6908	401 037 5004	MT-GLAZE 0.000 ZA 1/10W
R6909	401 037 5004	MT-GLAZE 0.000 ZA 1/10W
R6910	401 037 5004	MT-GLAZE 0.000 ZA 1/10W
R6911	401 037 5004	MT-GLAZE 0.000 ZA 1/10W
R6912	401 037 5004	MT-GLAZE 0.000 ZA 1/10W
R6913	401 037 5004	MT-GLAZE 0.000 ZA 1/10W
R6951	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
R6952	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
R6953	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
R6954	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
R6955	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
R6956	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
R6957	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
R6958	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
R6959	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
R6960	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
R6961	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
R6962	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
R6963	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
R6964	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
R6965	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
R6966	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
R6967	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
R6968	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
R6969	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
R6970	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
R6971	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
R6972	401 035 4108	MT-GLAZE 0.000 ZA 1/8W

PARTS LIST

REF.NO.	PART NO.	DESCRIPTION
R6973	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
R6974	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
R6975	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
R6976	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
R6977	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
R6978	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
R6979	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
R6980	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
R6981	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
R6982	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
R6983	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
R6984	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
R6985	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
R6986	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
R6987	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
R6988	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
R6989	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
R6990	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
R6991	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
R6992	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
R6993	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
R6994	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
R6995	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
R6996	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
S6001	645 040 1763	SWITCH,ROTARY(ENCODER),VOL
S6100	614 240 1002	SWITCH,TACT
or	645 006 5958	SWITCH,PUSH 1P-1T
or	614 220 5471	SWITCH,TACT
S6101	614 240 1002	SWITCH,TACT
or	645 006 5958	SWITCH,PUSH 1P-1T
or	614 220 5471	SWITCH,TACT
S6102	614 240 1002	SWITCH,TACT
or	645 006 5958	SWITCH,PUSH 1P-1T
or	614 220 5471	SWITCH,TACT
S6103	614 240 1002	SWITCH,TACT
or	645 006 5958	SWITCH,PUSH 1P-1T
or	614 220 5471	SWITCH,TACT
S6104	614 240 1002	SWITCH,TACT
or	645 006 5958	SWITCH,PUSH 1P-1T
or	614 220 5471	SWITCH,TACT
S6105	614 240 1002	SWITCH,TACT
or	645 006 5958	SWITCH,PUSH 1P-1T
or	614 220 5471	SWITCH,TACT
S6106	614 240 1002	SWITCH,TACT
or	645 006 5958	SWITCH,PUSH 1P-1T
or	614 220 5471	SWITCH,TACT
S6107	614 240 1002	SWITCH,TACT
or	645 006 5958	SWITCH,PUSH 1P-1T
or	614 220 5471	SWITCH,TACT
S6108	614 240 1002	SWITCH,TACT
or	645 006 5958	SWITCH,PUSH 1P-1T
or	614 220 5471	SWITCH,TACT
S6109	614 240 1002	SWITCH,TACT
or	645 006 5958	SWITCH,PUSH 1P-1T
or	614 220 5471	SWITCH,TACT
S6115	614 240 1002	SWITCH,TACT
or	645 006 5958	SWITCH,PUSH 1P-1T
or	614 220 5471	SWITCH,TACT
S6116	614 240 1002	SWITCH,TACT
or	645 006 5958	SWITCH,PUSH 1P-1T
or	614 220 5471	SWITCH,TACT
S6117	614 240 1002	SWITCH,TACT
or	645 006 5958	SWITCH,PUSH 1P-1T
or	614 220 5471	SWITCH,TACT
S6118	614 240 1002	SWITCH,TACT
or	645 006 5958	SWITCH,PUSH 1P-1T
or	614 220 5471	SWITCH,TACT
S6119	614 240 1002	SWITCH,TACT
or	645 006 5958	SWITCH,PUSH 1P-1T
or	614 220 5471	SWITCH,TACT
S6120	614 240 1002	SWITCH,TACT
or	645 006 5958	SWITCH,PUSH 1P-1T
or	614 220 5471	SWITCH,TACT
S6121	614 240 1002	SWITCH,TACT
or	645 006 5958	SWITCH,PUSH 1P-1T
or	614 220 5471	SWITCH,TACT
S6600	614 215 9828	SWITCH,TACT
X6001	645 032 1627	OSC,CRYSTAL 32.768KHZ,XTAL
X6002	645 018 6103	OSC,CERAMIC 6.000MHZ,6MHZ

LED P.W.BOARD ASSY

REF.NO.	PART NO.	DESCRIPTION
72	614 314 7626	ASSY,PWB,LED(Only initial)
CN604	614 035 4911	SOCKET,DIP 2P
or	645 012 7786	SOCKET,DIP 2P
D6040	407 212 8907	LED HLMP-BB01-J0B00,BLUE

MPEG P.W.BOARD ASSY

REF.NO.	PART NO.	DESCRIPTION
73	614 314 7787	PWB,ASSY,MPEG(Only initial)
B8012	645 034 7887	INDUCTOR,1000 OHM
or	645 020 1813	INDUCTOR,1000 OHM
B8013	645 034 7887	INDUCTOR,1000 OHM
or	645 020 1813	INDUCTOR,1000 OHM
B8014	645 034 7887	INDUCTOR,1000 OHM
or	645 020 1813	INDUCTOR,1000 OHM
B8015	645 034 7887	INDUCTOR,1000 OHM
or	645 020 1813	INDUCTOR,1000 OHM
B8016	645 034 7887	INDUCTOR,1000 OHM
or	645 020 1813	INDUCTOR,1000 OHM
B8017	645 034 7887	INDUCTOR,1000 OHM
or	645 020 1813	INDUCTOR,1000 OHM
B8018	645 034 7887	INDUCTOR,1000 OHM
or	645 020 1813	INDUCTOR,1000 OHM
B8019	645 034 7887	INDUCTOR,1000 OHM
or	645 020 1813	INDUCTOR,1000 OHM
B8020	645 034 7887	INDUCTOR,1000 OHM
or	645 020 1813	INDUCTOR,1000 OHM
B8021	645 034 7887	INDUCTOR,1000 OHM
or	645 020 1813	INDUCTOR,1000 OHM
B8022	645 034 7887	INDUCTOR,1000 OHM
or	645 020 1813	INDUCTOR,1000 OHM
B8023	645 034 7887	INDUCTOR,1000 OHM
or	645 020 1813	INDUCTOR,1000 OHM
B8024	645 034 7887	INDUCTOR,1000 OHM
or	645 020 1813	INDUCTOR,1000 OHM
B8025	645 034 7887	INDUCTOR,1000 OHM
or	645 020 1813	INDUCTOR,1000 OHM
B8026	645 034 7887	INDUCTOR,1000 OHM
or	645 020 1813	INDUCTOR,1000 OHM
B8027	645 034 7887	INDUCTOR,1000 OHM
or	645 020 1813	INDUCTOR,1000 OHM
B8028	645 034 7887	INDUCTOR,1000 OHM
or	645 020 1813	INDUCTOR,1000 OHM
B8029	645 034 7887	INDUCTOR,1000 OHM
or	645 020 1813	INDUCTOR,1000 OHM
B8030	645 034 7887	INDUCTOR,1000 OHM
or	645 020 1813	INDUCTOR,1000 OHM
B8031	645 034 7887	INDUCTOR,1000 OHM
or	645 020 1813	INDUCTOR,1000 OHM
B8032	645 034 7887	INDUCTOR,1000 OHM
or	645 020 1813	INDUCTOR,1000 OHM
B8033	645 034 7887	INDUCTOR,1000 OHM
or	645 020 1813	INDUCTOR,1000 OHM
B8034	645 034 7887	INDUCTOR,1000 OHM
or	645 020 1813	INDUCTOR,1000 OHM
B8035	645 034 7887	INDUCTOR,1000 OHM
or	645 020 1813	INDUCTOR,1000 OHM
B8036	645 034 7887	INDUCTOR,1000 OHM

PARTS LIST

REF.NO.	PART NO.	DESCRIPTION
or	645 020 1813	INDUCTOR,1000 OHM
B8037	645 034 7887	INDUCTOR,1000 OHM
or	645 020 1813	INDUCTOR,1000 OHM
B8040	645 034 7887	INDUCTOR,1000 OHM
or	645 020 1813	INDUCTOR,1000 OHM
B8042	645 034 7887	INDUCTOR,1000 OHM
or	645 020 1813	INDUCTOR,1000 OHM
B8043	645 034 7887	INDUCTOR,1000 OHM
or	645 020 1813	INDUCTOR,1000 OHM
B8048	645 034 7887	INDUCTOR,1000 OHM
or	645 020 1813	INDUCTOR,1000 OHM
B8049	645 034 7887	INDUCTOR,1000 OHM
or	645 020 1813	INDUCTOR,1000 OHM
B8051	645 034 7887	INDUCTOR,1000 OHM
or	645 020 1813	INDUCTOR,1000 OHM
B8052	645 034 7887	INDUCTOR,1000 OHM
or	645 020 1813	INDUCTOR,1000 OHM
B8053	645 034 7887	INDUCTOR,1000 OHM
or	645 020 1813	INDUCTOR,1000 OHM
B8054	645 034 7887	INDUCTOR,1000 OHM
or	645 020 1813	INDUCTOR,1000 OHM
B8055	645 034 7887	INDUCTOR,1000 OHM
or	645 020 1813	INDUCTOR,1000 OHM
B8056	645 034 7887	INDUCTOR,1000 OHM
or	645 020 1813	INDUCTOR,1000 OHM
B8057	645 034 7887	INDUCTOR,1000 OHM
or	645 020 1813	INDUCTOR,1000 OHM
B8058	645 034 7887	INDUCTOR,1000 OHM
or	645 020 1813	INDUCTOR,1000 OHM
B8059	645 034 7887	INDUCTOR,1000 OHM
or	645 020 1813	INDUCTOR,1000 OHM
B8060	645 034 7887	INDUCTOR,1000 OHM
or	645 020 1813	INDUCTOR,1000 OHM
B8061	645 034 7887	INDUCTOR,1000 OHM
or	645 020 1813	INDUCTOR,1000 OHM
B8062	645 034 7887	INDUCTOR,1000 OHM
or	645 020 1813	INDUCTOR,1000 OHM
B8063	645 034 7887	INDUCTOR,1000 OHM
or	645 020 1813	INDUCTOR,1000 OHM
B8064	645 034 7887	INDUCTOR,1000 OHM
or	645 020 1813	INDUCTOR,1000 OHM
B8065	645 034 7887	INDUCTOR,1000 OHM
or	645 020 1813	INDUCTOR,1000 OHM
B8066	645 034 7887	INDUCTOR,1000 OHM
or	645 020 1813	INDUCTOR,1000 OHM
B8069	645 034 7887	INDUCTOR,1000 OHM
or	645 020 1813	INDUCTOR,1000 OHM
B8081	645 034 7887	INDUCTOR,1000 OHM
or	645 020 1813	INDUCTOR,1000 OHM
B8351	645 034 7887	INDUCTOR,1000 OHM
or	645 020 1813	INDUCTOR,1000 OHM
B8353	645 034 7887	INDUCTOR,1000 OHM
or	645 020 1813	INDUCTOR,1000 OHM
B8354	645 034 7887	INDUCTOR,1000 OHM
or	645 020 1813	INDUCTOR,1000 OHM
B8355	645 034 7887	INDUCTOR,1000 OHM
or	645 020 1813	INDUCTOR,1000 OHM
B8400	645 034 7887	INDUCTOR,1000 OHM
or	645 020 1813	INDUCTOR,1000 OHM
B8401	645 034 7887	INDUCTOR,1000 OHM
or	645 020 1813	INDUCTOR,1000 OHM
B8402	645 034 7887	INDUCTOR,1000 OHM
or	645 020 1813	INDUCTOR,1000 OHM
B8403	645 034 7887	INDUCTOR,1000 OHM
or	645 020 1813	INDUCTOR,1000 OHM
B8404	645 034 7887	INDUCTOR,1000 OHM
or	645 020 1813	INDUCTOR,1000 OHM
B8405	645 034 7887	INDUCTOR,1000 OHM
or	645 020 1813	INDUCTOR,1000 OHM
B8406	645 034 7887	INDUCTOR,1000 OHM
or	645 020 1813	INDUCTOR,1000 OHM
B8407	645 034 7887	INDUCTOR,1000 OHM
or	645 020 1813	INDUCTOR,1000 OHM
B8408	645 034 7887	INDUCTOR,1000 OHM
or	645 020 1813	INDUCTOR,1000 OHM
B8409	645 034 7887	INDUCTOR,1000 OHM
or	645 020 1813	INDUCTOR,1000 OHM
B8410	645 034 7887	INDUCTOR,1000 OHM
or	645 020 1813	INDUCTOR,1000 OHM
B8411	645 034 7887	INDUCTOR,1000 OHM
or	645 020 1813	INDUCTOR,1000 OHM
B8412	645 034 7887	INDUCTOR,1000 OHM
or	645 020 1813	INDUCTOR,1000 OHM
B8413	645 034 7887	INDUCTOR,1000 OHM
or	645 020 1813	INDUCTOR,1000 OHM
B8414	645 034 7887	INDUCTOR,1000 OHM
or	645 020 1813	INDUCTOR,1000 OHM
CN801	645 010 0772	PLUG,8P
CN805	645 036 4273	PLUG,14P
CN808	645 012 2248	PLUG,4P
CN809	645 041 3810	SOCKET,FPC 26P
CN810	645 041 3803	SOCKET,FPC 16P
CN818	645 020 7228	PLUG,9P
IC101	409 476 6408	IC KS24L161CS,EEPROM
or	409 339 3605	IC 24LC16BT/SN,EEPROM
or	410 394 0904	IC S524L50X51-SCB0,EEPROM
IC102	409 446 7800	IC ADV7170KSU,VIDEO_ENCODER
IC103	⚠ 409 482 7505	IC BA25BC0FP
IC104	⚠ 409 416 6406	IC BA033FP
IC105	409 408 9804	IC 74VHC74MTC,D_FRIP_FROP
or	409 415 7909	IC TC74VHC74FT,D_FRIP_FROP
IC110	409 482 0209	IC K4S161622D-TC80,SDRAM2MB
or	410 349 2502	IC EM636165TS-8,SDRAM2MB
or	410 349 2601	IC KM416S1120DT-G8,SDRAM2MB
IC111	409 482 0209	IC K4S161622D-TC80,SDRAM2MB
or	410 349 2502	IC EM636165TS-8,SDRAM2MB
or	410 349 2601	IC KM416S1120DT-G8,SDRAM2MB
IC112	409 431 9000	IC 74VHC244MTC
or	410 372 5709	IC MC74VHC244DT-R2
or	410 316 1804	IC TC74VHC244FT-EL
IC113	410 377 4707	IC 74VHCT244AMTC-X
or	410 372 5808	IC MC74VHCT244ADT-R2
or	410 314 3404	IC TC74VHCT244AFT-EL
IC116	409 482 0100	IC L64030,MICON
IC117	409 482 0209	IC K4S161622D-TC80,SDRAM2MB
or	410 349 2502	IC EM636165TS-8,SDRAM2MB
or	410 349 2601	IC KM416S1120DT-G8,SDRAM2MB
IC118	410 368 2002	IC LE28DW8102T-90-MPB,FLASH
IC127	409 460 3307	IC L64021D,MPEG
IC130	409 482 0001	IC BMR-0302E,RESET
IC131	409 438 7504	IC PCM1723E,DAC
IC132	409 039 8603	IC NJM4560M
IC133	409 484 7602	IC NC7SZ08P5
or	409 368 5809	IC TC7SH08FU
IC135	409 484 7602	IC NC7SZ08P5
or	409 368 5809	IC TC7SH08FU
IC136	409 484 7503	IC NC7SZU04P5
or	409 330 9606	IC TC7SHU04FU
IC137	409 484 7602	IC NC7SZ08P5
or	409 368 5809	IC TC7SH08FU
L8031	645 037 1608	INDUCTOR,2.2U J
L8032	645 037 1608	INDUCTOR,2.2U J
L8033	645 037 1608	INDUCTOR,2.2U J
L8034	645 037 1608	INDUCTOR,2.2U J
Q8003	405 146 5306	TR KRA102S
or	405 000 0409	TR DTA114EK
Q8004	405 146 1605	TR KRC102S
or	405 000 2908	TR DTC114EK

PARTS LIST

REF.NO.	PART NO.	DESCRIPTION
R8001	401 105 4502	MT-GLAZE 390 JA 1/16W
R8002	401 105 8005	MT-GLAZE 1M JA 1/16W
R8003	401 105 3901	MT-GLAZE 33 JA 1/16W
R8004	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R8021	401 105 3901	MT-GLAZE 33 JA 1/16W
R8022	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R8023	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R8024	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R8025	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R8026	401 105 0405	MT-GLAZE 100 JA 1/16W
R8027	401 105 0405	MT-GLAZE 100 JA 1/16W
R8028	401 105 5202	MT-GLAZE 470 JA 1/16W
R8029	401 105 2706	MT-GLAZE 220 JA 1/16W
R8030	401 105 2706	MT-GLAZE 220 JA 1/16W
R8031	401 105 2706	MT-GLAZE 220 JA 1/16W
R8032	401 105 3901	MT-GLAZE 33 JA 1/16W
R8033	401 105 3901	MT-GLAZE 33 JA 1/16W
R8034	401 105 3901	MT-GLAZE 33 JA 1/16W
R8035	401 105 3901	MT-GLAZE 33 JA 1/16W
R8036	401 105 3901	MT-GLAZE 33 JA 1/16W
R8039	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R8040	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R8041	401 105 4007	MT-GLAZE 330 JA 1/16W
R8042	401 105 3901	MT-GLAZE 33 JA 1/16W
R8043	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R8044	401 105 0405	MT-GLAZE 100 JA 1/16W
R8045	401 105 2706	MT-GLAZE 220 JA 1/16W
R8046	401 105 2706	MT-GLAZE 220 JA 1/16W
R8047	401 105 5202	MT-GLAZE 470 JA 1/16W
R8048	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R8051	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R8087	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R8089	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R8090	401 105 3901	MT-GLAZE 33 JA 1/16W
R8091	401 105 0702	MT-GLAZE 100K JA 1/16W
R8092	401 105 5400	MT-GLAZE 47K JA 1/16W
R8093	401 105 3901	MT-GLAZE 33 JA 1/16W
R8094	401 105 3901	MT-GLAZE 33 JA 1/16W
R8096	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R8097	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R8098	401 105 3307	MT-GLAZE 2.7K JA 1/16W
R8099	401 105 3307	MT-GLAZE 2.7K JA 1/16W
R8101	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R8102	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R8107	401 105 0603	MT-GLAZE 10K JA 1/16W
R8108	401 105 0603	MT-GLAZE 10K JA 1/16W
R8109	401 105 0603	MT-GLAZE 10K JA 1/16W
R8110	401 105 0603	MT-GLAZE 10K JA 1/16W
R8111	401 105 3000	MT-GLAZE 220K JA 1/16W
R8112	401 105 3000	MT-GLAZE 220K JA 1/16W
R8113	401 105 1105	MT-GLAZE 12K JA 1/16W
R8114	401 105 1105	MT-GLAZE 12K JA 1/16W
R8115	401 105 0603	MT-GLAZE 10K JA 1/16W
R8116	401 105 0603	MT-GLAZE 10K JA 1/16W
R8117	401 105 0702	MT-GLAZE 100K JA 1/16W
R8118	401 105 0702	MT-GLAZE 100K JA 1/16W
R8131	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R8132	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R8142	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R8147	401 105 0405	MT-GLAZE 100 JA 1/16W
R8148	401 105 0405	MT-GLAZE 100 JA 1/16W
R8151	401 105 0405	MT-GLAZE 100 JA 1/16W
R8152	401 105 0405	MT-GLAZE 100 JA 1/16W
R8153	401 105 0405	MT-GLAZE 100 JA 1/16W
R8154	401 105 0405	MT-GLAZE 100 JA 1/16W
R8156	401 105 0405	MT-GLAZE 100 JA 1/16W
R8157	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R8158	401 105 0405	MT-GLAZE 100 JA 1/16W
R8161	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R8162	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R8163	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R8164	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R8165	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R8166	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R8167	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R8168	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R8169	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R8170	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R8171	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R8172	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R8173	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R8174	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R8175	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R8176	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R8177	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R8178	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R8179	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R8180	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R8181	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R8182	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R8183	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R8184	401 105 3901	MT-GLAZE 33 JA 1/16W
R8201	401 105 0603	MT-GLAZE 10K JA 1/16W
R8202	401 105 0603	MT-GLAZE 10K JA 1/16W
R8203	401 105 0603	MT-GLAZE 10K JA 1/16W
R8204	401 105 0603	MT-GLAZE 10K JA 1/16W
R8205	401 105 0603	MT-GLAZE 10K JA 1/16W
R8206	401 105 0603	MT-GLAZE 10K JA 1/16W
R8207	401 105 0603	MT-GLAZE 10K JA 1/16W
R8208	401 105 0603	MT-GLAZE 10K JA 1/16W
R8209	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R8210	401 105 0603	MT-GLAZE 10K JA 1/16W
R8211	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R8215	401 105 1402	MT-GLAZE 150 JA 1/16W
R8216	401 105 0603	MT-GLAZE 10K JA 1/16W
R8217	401 105 0603	MT-GLAZE 10K JA 1/16W
R8218	401 105 0702	MT-GLAZE 100K JA 1/16W
R8219	401 105 2607	MT-GLAZE 22 JA 1/16W
R8220	401 105 2607	MT-GLAZE 22 JA 1/16W
R8221	401 105 2607	MT-GLAZE 22 JA 1/16W
R8222	401 105 2607	MT-GLAZE 22 JA 1/16W
R8223	401 105 2607	MT-GLAZE 22 JA 1/16W
R8224	401 105 2607	MT-GLAZE 22 JA 1/16W
R8225	401 105 2607	MT-GLAZE 22 JA 1/16W
R8226	401 105 2607	MT-GLAZE 22 JA 1/16W
R8251	401 113 4402	MT-GLAZE 75 JA 1/16W
R8252	401 113 4402	MT-GLAZE 75 JA 1/16W
R8253	401 113 4402	MT-GLAZE 75 JA 1/16W
R8254	401 113 4402	MT-GLAZE 75 JA 1/16W
R8265	401 105 0603	MT-GLAZE 10K JA 1/16W
R8301	401 105 0603	MT-GLAZE 10K JA 1/16W
R8302	401 105 0603	MT-GLAZE 10K JA 1/16W
R8303	401 105 0603	MT-GLAZE 10K JA 1/16W
R8304	401 105 0603	MT-GLAZE 10K JA 1/16W
R8305	401 105 0603	MT-GLAZE 10K JA 1/16W
R8306	401 105 0603	MT-GLAZE 10K JA 1/16W
R8307	401 105 0603	MT-GLAZE 10K JA 1/16W
R8308	401 105 0603	MT-GLAZE 10K JA 1/16W
R8309	401 105 0603	MT-GLAZE 10K JA 1/16W
R8310	401 105 0603	MT-GLAZE 10K JA 1/16W
R8311	401 105 0603	MT-GLAZE 10K JA 1/16W
R8312	401 105 0603	MT-GLAZE 10K JA 1/16W
R8313	401 105 0603	MT-GLAZE 10K JA 1/16W
R8314	401 105 0603	MT-GLAZE 10K JA 1/16W
R8315	401 105 0603	MT-GLAZE 10K JA 1/16W
R8317	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R8318	401 105 0603	MT-GLAZE 10K JA 1/16W
R8320	401 105 0603	MT-GLAZE 10K JA 1/16W

PARTS LIST

REF.NO.	PART NO.	DESCRIPTION
R8321	401 105 0603	MT-GLAZE 10K JA 1/16W
R8322	401 105 0603	MT-GLAZE 10K JA 1/16W
R8323	401 105 0603	MT-GLAZE 10K JA 1/16W
R8324	401 105 0603	MT-GLAZE 10K JA 1/16W
R8325	401 105 0603	MT-GLAZE 10K JA 1/16W
R8326	401 105 0603	MT-GLAZE 10K JA 1/16W
R8327	401 105 0603	MT-GLAZE 10K JA 1/16W
R8328	401 105 0603	MT-GLAZE 10K JA 1/16W
R8329	401 105 0603	MT-GLAZE 10K JA 1/16W
R8330	401 105 0603	MT-GLAZE 10K JA 1/16W
R8331	401 105 0603	MT-GLAZE 10K JA 1/16W
R8332	401 105 0603	MT-GLAZE 10K JA 1/16W
R8333	401 105 0603	MT-GLAZE 10K JA 1/16W
R8334	401 105 0702	MT-GLAZE 100K JA 1/16W
R8335	401 105 0702	MT-GLAZE 100K JA 1/16W
R8336	401 105 0702	MT-GLAZE 100K JA 1/16W
R8338	401 105 0702	MT-GLAZE 100K JA 1/16W
R8339	401 105 0603	MT-GLAZE 10K JA 1/16W
R8340	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R8341	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R8342	401 105 0603	MT-GLAZE 10K JA 1/16W
R8343	401 105 0603	MT-GLAZE 10K JA 1/16W
R8344	401 105 0603	MT-GLAZE 10K JA 1/16W
R8345	401 105 0603	MT-GLAZE 10K JA 1/16W
R8346	401 105 0702	MT-GLAZE 100K JA 1/16W
R8347	401 105 0603	MT-GLAZE 10K JA 1/16W
R8348	401 105 0603	MT-GLAZE 10K JA 1/16W
R8349	401 105 0702	MT-GLAZE 100K JA 1/16W
R8350	401 105 0603	MT-GLAZE 10K JA 1/16W
R8351	401 105 0603	MT-GLAZE 10K JA 1/16W
R8352	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R8353	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R8354	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R8355	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R8356	401 105 0702	MT-GLAZE 100K JA 1/16W
R8357	401 105 0702	MT-GLAZE 100K JA 1/16W
R8358	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R8359	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R8360	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R8361	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R8362	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R8363	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R8364	401 105 0603	MT-GLAZE 10K JA 1/16W
R8365	401 105 0603	MT-GLAZE 10K JA 1/16W
R8366	401 105 0603	MT-GLAZE 10K JA 1/16W
R8381	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R8382	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R8386	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R8387	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R8389	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R8390	401 105 0702	MT-GLAZE 100K JA 1/16W
R8391	401 105 0702	MT-GLAZE 100K JA 1/16W
R8392	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R8393	401 105 0702	MT-GLAZE 100K JA 1/16W
R8394	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R8395	401 105 0702	MT-GLAZE 100K JA 1/16W
R8397	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R8398	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R8399	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R8400	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R8401	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R8402	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R8403	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R8405	401 105 0603	MT-GLAZE 10K JA 1/16W
R8411	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R8412	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R8413	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R8414	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R8415	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R8416	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R8417	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R8418	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R8419	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R8420	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R8421	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R8431	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R8432	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R8433	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R8434	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R8435	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R8436	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R8437	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R8438	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R8439	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R8440	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R8441	401 105 5400	MT-GLAZE 47K JA 1/16W
R8442	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R8501	401 105 3901	MT-GLAZE 33 JA 1/16W
R8502	401 105 3901	MT-GLAZE 33 JA 1/16W
R8503	401 105 3901	MT-GLAZE 33 JA 1/16W
R8504	401 105 3901	MT-GLAZE 33 JA 1/16W
R8506	401 105 3901	MT-GLAZE 33 JA 1/16W
R8507	401 105 3901	MT-GLAZE 33 JA 1/16W
R8508	401 105 3901	MT-GLAZE 33 JA 1/16W
R8509	401 105 3901	MT-GLAZE 33 JA 1/16W
R8510	401 105 3901	MT-GLAZE 33 JA 1/16W
R8511	401 105 3901	MT-GLAZE 33 JA 1/16W
R8512	401 105 3901	MT-GLAZE 33 JA 1/16W
R8513	401 105 3901	MT-GLAZE 33 JA 1/16W
R8514	401 105 3901	MT-GLAZE 33 JA 1/16W
R8515	401 105 3901	MT-GLAZE 33 JA 1/16W
R8516	401 105 3901	MT-GLAZE 33 JA 1/16W
R8517	401 105 3901	MT-GLAZE 33 JA 1/16W
R8518	401 105 3901	MT-GLAZE 33 JA 1/16W
R8519	401 105 3901	MT-GLAZE 33 JA 1/16W
R8520	401 105 3901	MT-GLAZE 33 JA 1/16W
R8521	401 105 3901	MT-GLAZE 33 JA 1/16W
R8522	401 105 3901	MT-GLAZE 33 JA 1/16W
R8523	401 105 3901	MT-GLAZE 33 JA 1/16W
R8524	401 105 3901	MT-GLAZE 33 JA 1/16W
R8525	401 105 3901	MT-GLAZE 33 JA 1/16W
R8526	401 105 3901	MT-GLAZE 33 JA 1/16W
R8527	401 105 3901	MT-GLAZE 33 JA 1/16W
R8528	401 105 3901	MT-GLAZE 33 JA 1/16W
R8529	401 105 3901	MT-GLAZE 33 JA 1/16W
R8530	401 105 3901	MT-GLAZE 33 JA 1/16W
R8531	401 105 3901	MT-GLAZE 33 JA 1/16W
R8532	401 105 3901	MT-GLAZE 33 JA 1/16W
R8533	401 105 3901	MT-GLAZE 33 JA 1/16W
R8534	401 105 3901	MT-GLAZE 33 JA 1/16W
R8535	401 105 3901	MT-GLAZE 33 JA 1/16W
R8536	401 105 3901	MT-GLAZE 33 JA 1/16W
R8537	401 105 3901	MT-GLAZE 33 JA 1/16W
R8538	401 105 3901	MT-GLAZE 33 JA 1/16W
R8539	401 105 3901	MT-GLAZE 33 JA 1/16W
R8540	401 105 3901	MT-GLAZE 33 JA 1/16W
R8541	401 105 3901	MT-GLAZE 33 JA 1/16W
R8542	401 105 3901	MT-GLAZE 33 JA 1/16W
R8543	401 105 3901	MT-GLAZE 33 JA 1/16W
R8544	401 105 3901	MT-GLAZE 33 JA 1/16W
R8551	401 105 3901	MT-GLAZE 33 JA 1/16W
R8552	401 105 3901	MT-GLAZE 33 JA 1/16W
R8553	401 105 3901	MT-GLAZE 33 JA 1/16W
R8554	401 105 3901	MT-GLAZE 33 JA 1/16W
R8555	401 105 3901	MT-GLAZE 33 JA 1/16W
R8556	401 105 3901	MT-GLAZE 33 JA 1/16W
R8557	401 105 3901	MT-GLAZE 33 JA 1/16W
R8558	401 105 3901	MT-GLAZE 33 JA 1/16W

PARTS LIST

REF.NO.	PART NO.	DESCRIPTION
R8559	401 105 3901	MT-GLAZE 33 JA 1/16W
R8560	401 105 3901	MT-GLAZE 33 JA 1/16W
R8561	401 105 3901	MT-GLAZE 33 JA 1/16W
R8562	401 105 3901	MT-GLAZE 33 JA 1/16W
R8563	401 105 3901	MT-GLAZE 33 JA 1/16W
R8564	401 105 3901	MT-GLAZE 33 JA 1/16W
R8565	401 105 3901	MT-GLAZE 33 JA 1/16W
R8566	401 105 3901	MT-GLAZE 33 JA 1/16W
R8571	401 105 3901	MT-GLAZE 33 JA 1/16W
R8572	401 105 3901	MT-GLAZE 33 JA 1/16W
R8573	401 105 3901	MT-GLAZE 33 JA 1/16W
R8574	401 105 3901	MT-GLAZE 33 JA 1/16W
R8575	401 105 3901	MT-GLAZE 33 JA 1/16W
R8576	401 105 3901	MT-GLAZE 33 JA 1/16W
R8577	401 105 3901	MT-GLAZE 33 JA 1/16W
R8578	401 105 3901	MT-GLAZE 33 JA 1/16W
R8579	401 105 3901	MT-GLAZE 33 JA 1/16W
R8580	401 105 3901	MT-GLAZE 33 JA 1/16W
R8581	401 105 3901	MT-GLAZE 33 JA 1/16W
R8582	401 105 3901	MT-GLAZE 33 JA 1/16W
R8583	401 105 3901	MT-GLAZE 33 JA 1/16W
R8584	401 105 3901	MT-GLAZE 33 JA 1/16W
R8585	401 105 3901	MT-GLAZE 33 JA 1/16W
R8586	401 105 3901	MT-GLAZE 33 JA 1/16W
X8001	645 042 2157	OSC,CRYSTAL 27.000MHZ, 27MHZ_OSC

DVD P.W.BOARD ASSY

REF.NO.	PART NO.	DESCRIPTION
74	614 315 1265	ASSY,PWB DVD (Only initial)
CN100	645 040 0865	SOCKET,FPC 33P
CN200	645 041 3810	SOCKET,FPC 26P
CN500	645 041 3803	SOCKET,FPC 16P
CN510	645 006 0953	PLUG,8P
CN540	645 006 0915	PLUG,4P
CN600	645 006 0922	PLUG,5P
CN610	645 028 8692	SOCKET,FPC 11P
CN620	645 006 2025	PLUG,2P
CN630	645 006 0908	PLUG,2P
CN900	645 006 0939	PLUG,6P
IC100	409 482 3903	IC LA9702WL-MPB
IC101	409 333 2505	IC BU4066BCF
IC200	409 822 9606	IC LC78660W-D
IC201	409 447 3702	IC T224162B-35S
or	410 367 3604	IC LC324265AT-25DV-TLM
or	409 447 3702	IC T224162B-35S
or	410 375 9407	IC LC324265AT-25DV-MPB
or	410 388 4505	IC M11B416256A-35T
IC500	409 490 0307	IC M37920S4CGP
IC502	409 183 0102	IC M51953BFP
IC504	409 330 9606	IC TC7SHU04FU
or	409 484 7503	IC NC7SZU04P5
IC550	410 400 0904	IC ASSY (IC LE28C1001ATS-90-MPB, LE28C1001DTS-90-MPB)
IC601	409 484 9101	IC BA5937AFP
IC602	409 405 6301	IC BA6849FP
IC900	⚠ 409 416 6406	IC BA033FP
L1001	645 019 0988	INDUCTOR,1000 OHM
or	645 020 2001	INDUCTOR,1000 OHM
L1002	645 019 0988	INDUCTOR,1000 OHM
or	645 020 2001	INDUCTOR,1000 OHM
L1003	645 019 0988	INDUCTOR,1000 OHM
or	645 020 2001	INDUCTOR,1000 OHM
L1004	645 019 0988	INDUCTOR,1000 OHM
or	645 020 2001	INDUCTOR,1000 OHM
L1005	645 019 0988	INDUCTOR,1000 OHM
or	645 020 2001	INDUCTOR,1000 OHM
L2001	645 019 0988	INDUCTOR,1000 OHM
or	645 020 2001	INDUCTOR,1000 OHM
L9001	645 001 5427	INDUCTOR,2.2U M
Q1002	405 014 4509	TR 2SC2412K-R
or	405 146 2206	TR KTC3875-GR
or	405 146 2107	TR KTC3875-Y
or	405 011 1006	TR 2SC1623-L6
Q1003	405 014 4509	TR 2SC2412K-R
or	405 146 2206	TR KTC3875-GR
or	405 146 2107	TR KTC3875-Y
or	405 011 1006	TR 2SC1623-L6
Q1004	405 035 5509	TR 2SA1036K-R
or	405 158 5905	TR KTA1505-Y
Q1005	405 035 5509	TR 2SA1036K-R
or	405 158 5905	TR KTA1505-Y
Q1008	405 014 4509	TR 2SC2412K-R
or	405 146 2206	TR KTC3875-GR
or	405 146 2107	TR KTC3875-Y
or	405 011 1006	TR 2SC1623-L6
Q1009	405 014 4509	TR 2SC2412K-R
or	405 146 2206	TR KTC3875-GR
or	405 146 2107	TR KTC3875-Y
or	405 011 1006	TR 2SC1623-L6
Q1010	405 002 0308	TR 2SA1037K-R
or	405 146 9700	TR KTA1504-GR
or	405 134 5905	TR 2SA1037AK-R
Q1011	405 014 4509	TR 2SC2412K-R
or	405 146 2206	TR KTC3875-GR
or	405 146 2107	TR KTC3875-Y
or	405 011 1006	TR 2SC1623-L6
Q1012	405 153 2008	TR 2SK3018
Q1013	405 029 3504	TR DTC144EK
or	405 146 1407	TR KRC104S
or	405 138 6700	TR DTC144EKA
Q5020	405 014 4509	TR 2SC2412K-R
or	405 146 2206	TR KTC3875-GR
or	405 146 2107	TR KTC3875-Y
or	405 011 1006	TR 2SC1623-L6
R1003	401 105 2607	MT-GLAZE 22 JA 1/16W
R1004	401 105 2607	MT-GLAZE 22 JA 1/16W
R1005	401 105 0504	MT-GLAZE 1K JA 1/16W
R1006	401 105 0504	MT-GLAZE 1K JA 1/16W
R1007	401 105 2805	MT-GLAZE 2.2K JA 1/16W
R1008	401 105 2805	MT-GLAZE 2.2K JA 1/16W
R1009	401 105 0603	MT-GLAZE 10K JA 1/16W
R1010	401 105 2904	MT-GLAZE 22K JA 1/16W
R1011	401 105 0702	MT-GLAZE 100K JA 1/16W
R1012	401 105 2904	MT-GLAZE 22K JA 1/16W
R1013	401 105 2904	MT-GLAZE 22K JA 1/16W
R1014	401 105 3406	MT-GLAZE 27K JA 1/16W
R1015	401 105 4205	MT-GLAZE 33K JA 1/16W
R1016	401 105 2904	MT-GLAZE 22K JA 1/16W
R1017	401 105 4205	MT-GLAZE 33K JA 1/16W
R1018	401 105 2607	MT-GLAZE 22 JA 1/16W
R1019	401 105 2607	MT-GLAZE 22 JA 1/16W
R1122	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R1124	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R1125	401 105 0603	MT-GLAZE 10K JA 1/16W
R1126	401 105 3406	MT-GLAZE 27K JA 1/16W
R1128	401 105 0603	MT-GLAZE 10K JA 1/16W
R1132	401 105 5400	MT-GLAZE 47K JA 1/16W
R1133	401 105 5400	MT-GLAZE 47K JA 1/16W
R1137	401 105 0504	MT-GLAZE 1K JA 1/16W
R1141	401 105 0504	MT-GLAZE 1K JA 1/16W
R1156	401 105 5905	MT-GLAZE 560 JA 1/16W
R1157	401 105 5905	MT-GLAZE 560 JA 1/16W
R1158	401 105 0405	MT-GLAZE 100 JA 1/16W
R1159	401 105 0504	MT-GLAZE 1K JA 1/16W
R1160	401 105 4007	MT-GLAZE 330 JA 1/16W
R1161	401 105 4007	MT-GLAZE 330 JA 1/16W
R1162	401 105 4007	MT-GLAZE 330 JA 1/16W

PARTS LIST

REF.NO.	PART NO.	DESCRIPTION
R1163	401 105 1402	MT-GLAZE 150 JA 1/16W
R1164	401 105 4007	MT-GLAZE 330 JA 1/16W
R1165	401 105 4007	MT-GLAZE 330 JA 1/16W
R1166	401 105 4007	MT-GLAZE 330 JA 1/16W
R1167	401 105 4007	MT-GLAZE 330 JA 1/16W
R1168	401 105 4007	MT-GLAZE 330 JA 1/16W
R1169	401 105 4007	MT-GLAZE 330 JA 1/16W
R1170	401 105 5400	MT-GLAZE 47K JA 1/16W
R1171	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R1172	401 105 5400	MT-GLAZE 47K JA 1/16W
R1174	401 105 5400	MT-GLAZE 47K JA 1/16W
R1176	401 105 2904	MT-GLAZE 22K JA 1/16W
R1179	401 105 2904	MT-GLAZE 22K JA 1/16W
R1180	401 105 1105	MT-GLAZE 12K JA 1/16W
R1181	401 105 3406	MT-GLAZE 27K JA 1/16W
R1184	401 105 8104	MT-GLAZE 56K JA 1/16W
R1185	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R1186	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R1187	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R1189	401 105 3406	MT-GLAZE 27K JA 1/16W
R1190	401 105 5400	MT-GLAZE 47K JA 1/16W
R1191	401 105 6605	MT-GLAZE 6.8K JA 1/16W
R1192	401 105 3406	MT-GLAZE 27K JA 1/16W
R1193	401 105 5400	MT-GLAZE 47K JA 1/16W
R1195	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R1197	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R1198	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R1199	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R2001	401 105 0504	MT-GLAZE 1K JA 1/16W
R2002	401 105 0504	MT-GLAZE 1K JA 1/16W
R2003	401 105 0504	MT-GLAZE 1K JA 1/16W
R2004	401 105 0504	MT-GLAZE 1K JA 1/16W
R2006	401 105 0504	MT-GLAZE 1K JA 1/16W
R2007	401 105 0504	MT-GLAZE 1K JA 1/16W
R2008	401 105 0603	MT-GLAZE 10K JA 1/16W
R2009	401 105 0603	MT-GLAZE 10K JA 1/16W
R2010	401 105 0603	MT-GLAZE 10K JA 1/16W
R2011	401 105 0603	MT-GLAZE 10K JA 1/16W
R2012	401 105 0603	MT-GLAZE 10K JA 1/16W
R2013	401 105 0603	MT-GLAZE 10K JA 1/16W
R2014	401 105 0603	MT-GLAZE 10K JA 1/16W
R2015	401 105 0603	MT-GLAZE 10K JA 1/16W
R2016	401 105 0603	MT-GLAZE 10K JA 1/16W
R2017	401 105 0603	MT-GLAZE 10K JA 1/16W
R2018	401 105 0603	MT-GLAZE 10K JA 1/16W
R2019	401 105 0603	MT-GLAZE 10K JA 1/16W
R2020	401 105 2607	MT-GLAZE 22 JA 1/16W
R2040	401 105 4205	MT-GLAZE 33K JA 1/16W
R2084	401 105 0702	MT-GLAZE 100K JA 1/16W
R2407	401 105 3406	MT-GLAZE 27K JA 1/16W
R2408	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R2410	401 105 0603	MT-GLAZE 10K JA 1/16W
R2411	401 105 1006	MT-GLAZE 1.2K JA 1/16W
R2412	401 105 2003	MT-GLAZE 1.8K JA 1/16W
R2413	401 105 2904	MT-GLAZE 22K JA 1/16W
R2414	401 105 2904	MT-GLAZE 22K JA 1/16W
R2417	401 105 1006	MT-GLAZE 1.2K JA 1/16W
R2419	401 105 6506	MT-GLAZE 680 JA 1/16W
R2423	401 105 1402	MT-GLAZE 150 JA 1/16W
R2424	401 105 8005	MT-GLAZE 1M JA 1/16W
R2425	401 105 6001	MT-GLAZE 5.6K JA 1/16W
R2426	401 105 0603	MT-GLAZE 10K JA 1/16W
R2427	401 105 2706	MT-GLAZE 220 JA 1/16W
R2428	401 105 0405	MT-GLAZE 100 JA 1/16W
R2429	401 105 0405	MT-GLAZE 100 JA 1/16W
R2430	401 105 0405	MT-GLAZE 100 JA 1/16W
R2431	401 105 0405	MT-GLAZE 100 JA 1/16W
R2432	401 105 0405	MT-GLAZE 100 JA 1/16W
R2435	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R2437	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R2439	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R2441	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R2443	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R2445	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R2447	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R2449	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R2451	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R2453	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R2455	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R2457	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R2459	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R2461	401 105 2607	MT-GLAZE 22 JA 1/16W
R2463	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R2466	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R2467	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R2468	401 037 5004	MT-GLAZE 0.000 ZA 1/10W
R2469	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R2470	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R2471	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R2472	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R2473	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R5003	401 105 0603	MT-GLAZE 10K JA 1/16W
R5004	401 105 0603	MT-GLAZE 10K JA 1/16W
R5005	401 105 0603	MT-GLAZE 10K JA 1/16W
R5006	401 105 0603	MT-GLAZE 10K JA 1/16W
R5007	401 105 0603	MT-GLAZE 10K JA 1/16W
R5008	401 105 0603	MT-GLAZE 10K JA 1/16W
R5015	401 105 0603	MT-GLAZE 10K JA 1/16W
R5017	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R5018	401 105 0603	MT-GLAZE 10K JA 1/16W
R5019	401 105 0603	MT-GLAZE 10K JA 1/16W
R5020	401 105 5400	MT-GLAZE 47K JA 1/16W
R5021	401 105 0603	MT-GLAZE 10K JA 1/16W
R5022	401 105 0603	MT-GLAZE 10K JA 1/16W
R5024	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R5026	401 105 0603	MT-GLAZE 10K JA 1/16W
R5027	401 105 0603	MT-GLAZE 10K JA 1/16W
R5028	401 105 0603	MT-GLAZE 10K JA 1/16W
R5029	401 105 0603	MT-GLAZE 10K JA 1/16W
R5031	401 105 0603	MT-GLAZE 10K JA 1/16W
R5032	401 105 0603	MT-GLAZE 10K JA 1/16W
R5033	401 105 0603	MT-GLAZE 10K JA 1/16W
R5034	401 105 0603	MT-GLAZE 10K JA 1/16W
R5035	401 105 0603	MT-GLAZE 10K JA 1/16W
R5037	401 105 0603	MT-GLAZE 10K JA 1/16W
R5038	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R5039	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R5040	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R5042	401 105 5400	MT-GLAZE 47K JA 1/16W
R5043	401 105 5400	MT-GLAZE 47K JA 1/16W
R5044	401 105 5400	MT-GLAZE 47K JA 1/16W
R5045	401 105 5400	MT-GLAZE 47K JA 1/16W
R5046	401 105 5400	MT-GLAZE 47K JA 1/16W
R5047	401 105 5400	MT-GLAZE 47K JA 1/16W
R5048	401 105 5400	MT-GLAZE 47K JA 1/16W
R5049	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R5066	401 105 0603	MT-GLAZE 10K JA 1/16W
R5067	401 105 0603	MT-GLAZE 10K JA 1/16W
R5068	401 105 0603	MT-GLAZE 10K JA 1/16W
R5069	401 105 0603	MT-GLAZE 10K JA 1/16W
R5070	401 105 0603	MT-GLAZE 10K JA 1/16W
R5071	401 105 0603	MT-GLAZE 10K JA 1/16W
R5072	401 105 0603	MT-GLAZE 10K JA 1/16W
R5073	401 105 0603	MT-GLAZE 10K JA 1/16W
R5075	401 105 0603	MT-GLAZE 10K JA 1/16W
R5076	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R5077	401 105 0603	MT-GLAZE 10K JA 1/16W
R5080	401 105 5301	MT-GLAZE 4.7K JA 1/16W

PARTS LIST

REF.NO.	PART NO.	DESCRIPTION
R5203	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R5204	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R5205	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R5206	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R5208	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R5209	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R5210	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R5211	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R5212	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R5213	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R5214	401 105 0603	MT-GLAZE 10K JA 1/16W
R5215	401 105 0504	MT-GLAZE 1K JA 1/16W
R5216	401 105 8005	MT-GLAZE 1M JA 1/16W
R5221	401 105 0603	MT-GLAZE 10K JA 1/16W
R5222	401 105 3307	MT-GLAZE 2.7K JA 1/16W
R5223	401 105 0603	MT-GLAZE 10K JA 1/16W
R5224	401 105 0603	MT-GLAZE 10K JA 1/16W
R5226	401 105 8005	MT-GLAZE 1M JA 1/16W
R5228	401 105 0603	MT-GLAZE 10K JA 1/16W
R5229	401 105 0603	MT-GLAZE 10K JA 1/16W
R5239	401 105 0603	MT-GLAZE 10K JA 1/16W
R5240	401 105 0603	MT-GLAZE 10K JA 1/16W
R5241	401 105 0603	MT-GLAZE 10K JA 1/16W
R5242	401 105 0603	MT-GLAZE 10K JA 1/16W
R5243	401 105 0603	MT-GLAZE 10K JA 1/16W
R5244	401 105 0603	MT-GLAZE 10K JA 1/16W
R5247	401 105 0603	MT-GLAZE 10K JA 1/16W
R5248	401 105 0603	MT-GLAZE 10K JA 1/16W
R5249	401 105 0603	MT-GLAZE 10K JA 1/16W
R5250	401 105 0603	MT-GLAZE 10K JA 1/16W
R5251	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R5252	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R5253	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R5254	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R5255	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R5256	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R5257	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R5258	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R5259	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R5260	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R5261	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R5262	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R5263	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R5264	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R5265	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R5266	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R5267	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R5268	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R5269	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R5270	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R5271	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R5272	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R5273	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R5274	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R5275	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R5276	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R5280	401 105 5400	MT-GLAZE 47K JA 1/16W
R6009	401 105 0603	MT-GLAZE 10K JA 1/16W
R6010	401 105 0603	MT-GLAZE 10K JA 1/16W
R6011	401 105 0603	MT-GLAZE 10K JA 1/16W
R6012	401 148 6006	MT-GLAZE 2.2 JA 1/16W
R6013	401 148 6006	MT-GLAZE 2.2 JA 1/16W
R6014	401 148 6006	MT-GLAZE 2.2 JA 1/16W
R6015	401 148 6006	MT-GLAZE 2.2 JA 1/16W
R6016	401 105 6407	MT-GLAZE 68 JA 1/16W
R6017	401 105 6407	MT-GLAZE 68 JA 1/16W
R6021	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R6508	401 105 0504	MT-GLAZE 1K JA 1/16W
R6509	401 105 0603	MT-GLAZE 10K JA 1/16W
R6526	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R6562	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R6564	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R6565	401 105 0603	MT-GLAZE 10K JA 1/16W
R6566	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R6568	401 105 0603	MT-GLAZE 10K JA 1/16W
R6569	401 105 0603	MT-GLAZE 10K JA 1/16W
R6573	401 105 0504	MT-GLAZE 1K JA 1/16W
R6574	401 105 0504	MT-GLAZE 1K JA 1/16W
R6575	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R9000	401 037 5004	MT-GLAZE 0.000 ZA 1/10W
R9001	401 037 5004	MT-GLAZE 0.000 ZA 1/10W
R9002	401 037 5004	MT-GLAZE 0.000 ZA 1/10W
R9003	401 037 5004	MT-GLAZE 0.000 ZA 1/10W
R9004	401 037 5004	MT-GLAZE 0.000 ZA 1/10W
R9005	401 037 5004	MT-GLAZE 0.000 ZA 1/10W
R9006	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
X2000	645 040 6089	OSC,CERAMIC 16.934MHZ
X5000	645 041 3797	OSC,CERAMIC 16.0MHZ

TUNER P.W.BOARD ASSY

REF.NO.	PART NO.	DESCRIPTION
75	614 314 5677	ASSY PWB TUNER(Only initial)
C2457	403 259 0508	NP-ELECT 1U M 50V
CN201	645 005 0695	TERMINAL,ANT
CN241	645 040 1145	PLUG,5P
CN242	645 033 7826	PLUG,11P
CN670	645 006 0892	PLUG,14P,TO_MPEG
CN681	645 038 3670	JACK,RCA
CN683	645 041 3544	SOCKET,DIN 4P
D2101	407 157 8109	VARACTOR DI SVC211-B
D2102	407 157 8109	VARACTOR DI SVC211-B
D2103	407 012 4406	DIODE 1SS133
D2104	407 012 4406	DIODE 1SS133
D2151	407 012 4406	DIODE 1SS133
D2301	407 063 9108	ZENER DIODE MTZJ6.8B
D2451	407 012 4406	DIODE 1SS133
D2452	407 153 7502	ZENER DIODE GZS3.0B
D2454	407 012 4406	DIODE 1SS133
D6721	407 099 7307	ZENER DIODE MTZJ16B
D6722	407 099 7307	ZENER DIODE MTZJ16B
IC211	409 292 5807	IC TA8176SN
IC231	409 474 3201	IC LA1844ML
IC241	409 439 4502	IC LC72121M-D
L2101	614 034 5988	VHF COIL 1AV4L20B0210N
L2102	645 018 0255	COIL,AIR
L2103	645 002 1534	INDUCTOR,8.2U K
L2151	645 023 0127	TUNER
L2451	645 001 4581	INDUCTOR,100U K
or	645 031 7842	INDUCTOR,100U K
LG201	645 023 8987	FIXER
Q2451	405 151 5209	TR KRA107M
or	405 000 0904	TR DTA114YS
or	405 078 2404	TR BN1A4P
or	405 036 3702	TR 2SA1564
SH601	614 313 4220	SHIELD,SVIDEOSHIELD
X2451	645 023 4965	OSC,CRYSTAL 7.2MHZ
XF211	614 252 1045	FILTER,LC
or	645 026 2975	FILTER,BP 108MHZ
XF221	614 231 0199	FILTER
or	645 010 7665	CERAMIC FILTER 10.70MHZ
or	614 030 5074	I.F FILTER
XF222	614 231 0199	FILTER
or	645 010 7665	CERAMIC FILTER 10.70MHZ
or	614 030 5074	I.F FILTER
XF231	614 246 0849	FILTER
XF233	645 039 9923	TRANS,IF 10.7MHZ

PARTS LIST

POWER AMP P.W.BOARD ASSY

REF.NO.		PART NO.	DESCRIPTION
76		614 314 5288	ASSY PWB POWER AMP(KR) (Only initial)
76		614 315 0268	ASSY PWB POWER AMP(SS) (Only initial)
C4742		403 062 0009	POLYESTER 0.047U J 50V
C4743		403 062 0009	POLYESTER 0.047U J 50V
C4752		403 059 8209	POLYESTER 0.22U K 50V
C4753		403 059 8209	POLYESTER 0.22U K 50V
C4842		403 062 0009	POLYESTER 0.047U J 50V
C4843		403 062 0009	POLYESTER 0.047U J 50V
C4852		403 059 8209	POLYESTER 0.22U K 50V
C4853		403 059 8209	POLYESTER 0.22U K 50V
CN407	⚠	645 005 9315	PLUG,2P(KR)
CN409	⚠	614 315 9056	ASSY,WIRE(SS)
CN474		645 033 7833	SOCKET,11P
CN475		645 033 7833	SOCKET,11P
CN476		645 033 7833	SOCKET,11P
CN484		645 006 2018	PLUG,6P
CN485		645 040 1152	SOCKET,5P
CN486		645 040 1152	SOCKET,5P
CN490		645 005 8141	PLUG,9P
or		614 310 2502	PLUG,9P
CN491		645 005 8127	PLUG,6P
or		614 310 2472	PLUG,6P
CN494		645 005 7373	PLUG,3P
or		614 310 2441	PLUG,3P
CN495		645 006 1820	PLUG,5P
CN497	⚠	645 030 9878	PLUG,3P(SS)
CN498		614 221 8273	TERMINAL
D4905	⚠	408 043 6506	DIODE SB340L-19C2-407
D4906	⚠	407 196 5800	DIODE 1N5402BD82
D4907	⚠	407 196 5800	DIODE 1N5402BD82
D4940		407 099 6805	ZENER DIODE MTZJ13B
D4941		407 099 4603	ZENER DIODE MTZJ3.9B
D4942		407 099 6805	ZENER DIODE MTZJ13B
D4943		407 099 4603	ZENER DIODE MTZJ3.9B
D4950		407 012 4406	DIODE 1SS133
D4970		407 012 4406	DIODE 1SS133
D4971		407 012 4406	DIODE 1SS133
D4972		407 012 4406	DIODE 1SS133
D4973		407 012 4406	DIODE 1SS133
D4974		407 099 9103	ZENER DIODE MTZJ27B
D4980	⚠	407 196 5800	DIODE 1N5402BD82
D4981	⚠	407 196 5800	DIODE 1N5402BD82
D4982	⚠	407 097 8009	DIODE MPG06G
D4983	⚠	407 097 8009	DIODE MPG06G
FCL41		645 006 4760	HOLDER,FUSE
or		645 031 7903	HOLDER,FUSE
FCL42		645 006 4760	HOLDER,FUSE
or		645 031 7903	HOLDER,FUSE
FCL43		645 031 7903	HOLDER,FUSE(SS)
or		645 006 4760	HOLDER,FUSE(SS)
FCL44		645 031 7903	HOLDER,FUSE(SS)
or		645 006 4760	HOLDER,FUSE(SS)
HS490		614 270 2598	HEAT SINK,IC490
HS491		614 266 6500	HEAT SINK,IC491
HS495		614 215 9347	HEAT SINK,IC495
IC474		409 426 1804	IC KIA4558S
IC475	⚠	409 421 0703	IC LA4663
IC490	⚠	409 463 6701	IC KIA7805API
or	⚠	409 145 2809	IC NJM7805FA
IC491	⚠	409 463 6701	IC KIA7805API
or	⚠	409 145 2809	IC NJM7805FA
IC492	⚠	409 492 4600	IC PQ1CY1032ZZ
IC495	⚠	409 463 6701	IC KIA7805API
or	⚠	409 145 2809	IC NJM7805FA
L4070	⚠	645 038 7364	INDUCTOR,70U(SS)
or	⚠	645 038 6053	INDUCTOR,181U(KR)
or	⚠	645 017 8061	INDUCTOR,181M(KR)
L4901	⚠	645 043 9940	INDUCTOR,45U
L4902		645 043 3054	INDUCTOR,10U
L4903		645 043 3054	INDUCTOR,10U
L4904		645 043 3054	INDUCTOR,10U
LG441		645 023 8987	FIXER
PR490	⚠	645 042 2621	PROTECTOR,1.5A 125V
PR491	⚠	645 027 4169	PROTECTOR,0.125A 125V
or	⚠	645 042 2584	PROTECTOR,0.125A 125V
PR493	⚠	645 042 2720	PROTECTOR,5A 125V
PR494	⚠	645 042 2720	PROTECTOR,5A 125V
PR497	⚠	645 042 2737	PROTECTOR,7A 125V
PR498	⚠	645 042 2737	PROTECTOR,7A 125V
PR499	⚠	645 027 4169	PROTECTOR,0.125A 125V
or	⚠	645 042 2584	PROTECTOR,0.125A 125V
Q4900		405 109 9204	TR KRC102M-A
Q4902		405 109 9204	TR KRC102M-A
Q4930		405 141 3208	TR KTC3198-Y
or		405 141 3307	TR KTC3198-GR
or		405 019 2708	TR 2SC536-F-NP
or		405 019 3804	TR 2SC536-G-NP
Q4931		405 141 3208	TR KTC3198-Y
or		405 141 3307	TR KTC3198-GR
or		405 019 2708	TR 2SC536-F-NP
or		405 019 3804	TR 2SC536-G-NP
Q4932		405 141 3208	TR KTC3198-Y
or		405 141 3307	TR KTC3198-GR
or		405 019 2708	TR 2SC536-F-NP
or		405 019 3804	TR 2SC536-G-NP
Q4933		405 141 3208	TR KTC3198-Y
or		405 141 3307	TR KTC3198-GR
or		405 019 2708	TR 2SC536-F-NP
or		405 019 3804	TR 2SC536-G-NP
Q4936		405 141 3505	TR KTA1266-Y
or		405 141 3406	TR KTA1266-GR
or		405 004 4502	TR 2SA608-F-NP
or		405 004 5004	TR 2SA608-G-NP
Q4937		405 141 3505	TR KTA1266-Y
or		405 141 3406	TR KTA1266-GR
or		405 004 4502	TR 2SA608-F-NP
or		405 004 5004	TR 2SA608-G-NP
Q4970	⚠	405 141 3604	TR KTA1273-Y
or	⚠	405 009 5207	TR 2SB927-S
or	⚠	405 009 5306	TR 2SB927-T
R4754	⚠	402 081 0106	FUSIBLE RES 2.2 JA 1/4W
R4755	⚠	402 081 0106	FUSIBLE RES 2.2 JA 1/4W
R4854	⚠	402 081 0106	FUSIBLE RES 2.2 JA 1/4W
R4855	⚠	402 081 0106	FUSIBLE RES 2.2 JA 1/4W
R4937	⚠	402 082 5209	RESISTOR 1 J- 1/2W
R4938	⚠	402 083 7707	RESISTER J- 1W
R4947	⚠	402 084 7201	FUSIBLE RES 18
R4952	⚠	402 083 9701	RESISTOR J- 1W
R4953	⚠	402 084 7003	RESISTER J- 2W
WR497		614 017 8203	TERMINAL BOARD
WR498		614 017 8203	TERMINAL BOARD

VOL-REG P.W.BOARD ASSY

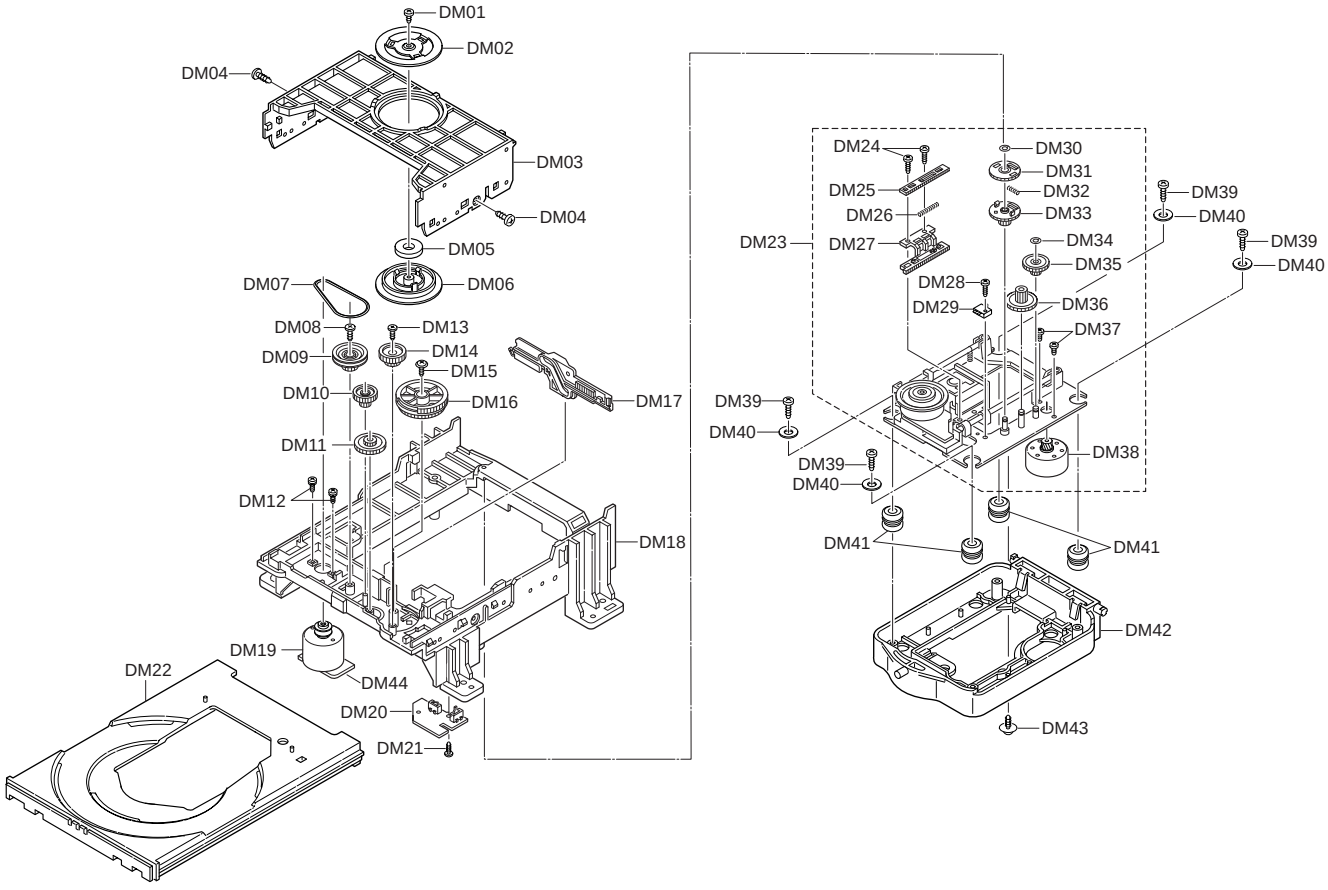
REF.NO.		PART NO.	DESCRIPTION
77		614 314 5295	ASSY PWB,VOL-REG(KR)(Only initial)
77		614 316 5866	ASSY,PWB,VOL-REG(SS)(Only initial)
CN404		614 035 4928	SOCKET,DIP 3P
CN405		614 309 9482	ASSY,WIRE
Q4040	⚠	405 138 6403	TR KTD2058Y
or	⚠	405 158 2102	TR KTC2026-Y

PARTS LIST

PRE-AMP P.W.BOARD ASSY

REF.NO.	PART NO.	DESCRIPTION
78	614 314 5271	ASSY PWB PRE AMP(KR)(Only initial)
78	614 315 0244	ASSY PWB PRE AMP(SS)(Only initial)
C4507	403 168 6202	MT-POLYEST 0.33U J 50V
or	403 067 7300	MT-COMPO 0.33U J 50V
C4508	403 168 6202	MT-POLYEST 0.33U J 50V
or	403 067 7300	MT-COMPO 0.33U J 50V
C4607	403 168 6202	MT-POLYEST 0.33U J 50V
or	403 067 7300	MT-COMPO 0.33U J 50V
C4608	403 168 6202	MT-POLYEST 0.33U J 50V
or	403 067 7300	MT-COMPO 0.33U J 50V
C4702	403 168 6202	MT-POLYEST 0.33U J 50V
or	403 067 7300	MT-COMPO 0.33U J 50V
C4703	403 057 2803	POLYESTER 0.1U K 50V
C4707	403 057 0403	POLYESTER 0.01U K 50V(KR)
C4710	403 057 0403	POLYESTER 0.01U K 50V(KR)
C4802	403 168 6202	MT-POLYEST 0.33U J 50V
or	403 067 7300	MT-COMPO 0.33U J 50V
C4803	403 057 2803	POLYESTER 0.1U K 50V
C4807	403 057 0403	POLYESTER 0.01U K 50V(KR)
CN421	407 218 1100	PHOTO COUPLE GP1FA550TZ
or	407 215 1608	PHOTO COUPLE TOTX178A
CN422	⚠ 645 030 9878	PLUG,3P(SS)
CN423	⚠ 645 005 9315	PLUG,2P(SS)
CN424	645 005 8110	PLUG,4P
or	614 310 2458	PLUG,4P
CN430	645 044 0939	JACK,RCA-2,VIDEO
CN431	645 033 7826	PLUG,11P
CN432	645 005 8554	SOCKET,6P
CN433	645 026 1916	CORD,TERMINAL
CN439	645 004 2881	PLUG,2P
or	614 310 2731	PLUG,2P
CN449	645 011 6384	JACK,PHONE D3.6,HEADPHONE
CN450	645 033 7826	PLUG,11P
CN451	645 040 1145	PLUG,5P
CN455	645 009 0196	SOCKET,24P
CN459	645 006 1813	PLUG,4P
CN470	645 006 1899	PLUG,4P
CN471	645 033 3057	JACK,RCA
CN480	645 006 1899	PLUG,4P
D4310	⚠ 407 097 8009	DIODE MPG06G
D4380	407 099 5303	ZENER DIODE MTZJ5.6B
D4390	407 012 4406	DIODE 1SS133(
D4391	407 012 4406	DIODE 1SS133
D4392	407 012 4406	DIODE 1SS133
D4581	407 012 4406	DIODE 1SS133
D4582	407 099 6003	ZENER DIODE MTZJ9.1B
D4684	⚠ 407 177 5300	DIODE RL153-M13
D4685	⚠ 407 177 5300	DIODE RL153-M13
D4686	⚠ 407 177 5300	DIODE RL153-M13
D4687	⚠ 407 177 5300	DIODE RL153-M13
D4691	407 099 5204	ZENER DIODE MTZJ5.1B
D4780	407 012 4406	DIODE 1SS133
D4781	407 012 4406	DIODE 1SS133
HS401	614 314 7169	HEAT SINK
IC413	409 467 0101	IC LA2615,SURROUND
IC437	409 460 9507	IC BH3544F
IC450	409 474 6103	IC LC75342M
IC471	⚠ 409 237 8504	IC LA4485
IC473	409 426 1804	IC KIA4558S
L4371	645 031 7835	INDUCTOR,10U K
L4372	645 006 9864	INDUCTOR,80U(KR)
L4471	645 031 7835	INDUCTOR,10U K
L4472	645 006 9864	INDUCTOR,80U(KR)
LG401	645 023 8987	FIXER
LG402	645 023 8987	FIXER
LG403	645 023 8987	FIXER
LG404	645 023 8987	FIXER
PR439	⚠ 645 027 4169	PROTECTOR,0.125A 125V
or	⚠ 645 042 2584	PROTECTOR,0.125A 125V
PR458	⚠ 645 042 2553	PROTECTOR,0.63A 125V
PR459	⚠ 645 042 2676	PROTECTOR,2.5A 125V
Q4380	⚠ 405 141 1402	TR KTD863-GR
or	⚠ 405 023 5009	TR 2SD400-E-MP
or	⚠ 405 023 5306	TR 2SD400-F-MP
Q4381	405 141 3208	TR KTC3198-Y
or	405 141 3307	TR KTC3198-GR
or	405 019 2708	TR 2SC536-F-NP
or	405 019 3804	TR 2SC536-G-NP
Q4382	405 141 3505	TR KTA1266-Y
or	405 141 3406	TR KTA1266-GR
or	405 004 4502	TR 2SA608-F-NP
or	405 004 5004	TR 2SA608-G-NP
Q4383	405 141 3208	TR KTC3198-Y
or	405 141 3307	TR KTC3198-GR
or	405 019 2708	TR 2SC536-F-NP
or	405 019 3804	TR 2SC536-G-NP
Q4390	405 141 3208	TR KTC3198-Y
or	405 141 3307	TR KTC3198-GR
or	405 019 2708	TR 2SC536-F-NP
or	405 019 3804	TR 2SC536-G-NP
Q4391	405 141 3208	TR KTC3198-Y
or	405 141 3307	TR KTC3198-GR
or	405 019 2708	TR 2SC536-F-NP
or	405 019 3804	TR 2SC536-G-NP
Q4392	405 141 3208	TR KTC3198-Y
or	405 141 3307	TR KTC3198-GR
or	405 019 2708	TR 2SC536-F-NP
or	405 019 3804	TR 2SC536-G-NP
Q4580	405 141 3505	TR KTA1266-Y
or	405 141 3406	TR KTA1266-GR
or	405 004 4502	TR 2SA608-F-NP
or	405 004 5004	TR 2SA608-G-NP
Q4581	405 141 3505	TR KTA1266-Y
or	405 141 3406	TR KTA1266-GR
or	405 004 4502	TR 2SA608-F-NP
or	405 004 5004	TR 2SA608-G-NP
Q4701	405 141 3208	TR KTC3198-Y
or	405 141 3307	TR KTC3198-GR
or	405 019 2708	TR 2SC536-F-NP
or	405 019 3804	TR 2SC536-G-NP
Q4780	405 141 3505	TR KTA1266-Y
or	405 141 3406	TR KTA1266-GR
or	405 004 4502	TR 2SA608-F-NP
or	405 004 5004	TR 2SA608-G-NP
Q4781	405 141 3208	TR KTC3198-Y
or	405 141 3307	TR KTC3198-GR
or	405 019 2708	TR 2SC536-F-NP
or	405 019 3804	TR 2SC536-G-NP
Q4782	405 151 4400	TR KTD1303
or	405 021 0204	TR 2SD1012-F-SPA
or	405 021 0600	TR 2SD1012-G-SPA
or	405 033 6706	TR 2SD1468S-R
or	405 033 6805	TR 2SD1468S-S
Q4783	405 151 4400	TR KTD1303
or	405 021 0204	TR 2SD1012-F-SPA
or	405 021 0600	TR 2SD1012-G-SPA
or	405 033 6706	TR 2SD1468S-R
or	405 033 6805	TR 2SD1468S-S
R4706	⚠ 402 081 0106	FUSIBLE RES 2.2 JA 1/4W(SS)
or	⚠ 402 081 0106	FUSIBLE RES 2.2 JA 1/4W(KR)
R4806	⚠ 402 081 0106	FUSIBLE RES 2.2 JA 1/4W(SS)
or	⚠ 402 081 0106	FUSIBLE RES 2.2 JA 1/4W(KR)
S4200	645 040 6119	SWITCH,SLIDE 2P-2TX2
S4999	645 023 0752	SWITCH,SLIDE VOLTAGE(SS)

EXPLODED VIEW (DVD MECHANISM)



PARTS LIST

DVD MECHANISM CHASSIS

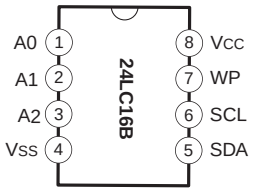
REF.NO.	PART NO.	DESCRIPTION
	614 315 1760	ASSY,MECHA,KIT 300
DM01	411 162 1901	SCR S-TPG PAN PCS 2X3, CHUCK HOLDER FIX
DM02	614 310 2021	DISC,BACK YOKE
DM03	614 255 2605	MOUNT-M,CHUCK MOUNTING
DM04	411 021 2704	SCR S-TPG BIN 2.6X6,MOUNT-M FIX
DM05	645 027 7405	MAGNET,CHUCK
or	645 043 7175	MAGNET(CHUCK),CHUCK
DM06	614 310 2106	HOLDER,CHUCK HOLDER
DM07	614 300 8293	BELT,SQUARE,LOADING
DM08	411 021 2704	SCR S-TPG BIN 2.6X6, PULLEY(A083)FIX
DM09	614 237 7161	PULLEY,LOADING RELAY PULLEY
DM10	614 237 7048	GEAR,LOADING RETARD GEAR 1
DM11	614 300 5124	GEAR,LOADING RETARD
DM12	411 044 7502	SCR PAN+SW 2X5, LOADING MOTOR FIX
DM13	412 047 3904	SPECIAL SCREW,LOADING GEAR FIX
DM14	614 237 7079	GEAR,LOADING GEAR
DM15	411 020 9902	SCR S-TPG BRZ+FLG 3X8, GEAR(A112) FIX
DM16	614 300 5131	GEAR,LOADING CUM GE
DM17	614 237 7208	SLIDE,BASE UP/DOWN
DM18	614 310 2014	CHASSIS,LOADING CHASSIS
DM19	645 032 4352	ASSY,LOADING MOTOR
DM21	411 022 8408	SCR S-TPG PAN 2X8,SW PWB FIX
DM22	614 310 2175	TRAY,TRAY
DM23	614 310 6548	ASSY,MECHA,KIT 300 BASE, BASE MECHANISM
DM24	411 152 4301	SCR S-TPG PAN PCS 1.7X6,RACK FIX
DM25	614 310 2083	GEAR,RACK,MOVE PICKUP(FREE)
DM26	614 310 6159	SPRING,COMP, FOR BACK RUSH(RACK)
DM27	614 310 2076	GEAR,RACK,MOVE PICKUP(FIX)
DM28	411 018 4704	SCR PAN PCS 1.7X5,LIMIT SW FIX
DM29	645 040 9899	SWITCH,MICRO 1P-2T,LIMIT SW
DM30	412 057 8304	SPECIAL WASHER,FOR GEAR FIX
DM31	614 310 2069	GEAR.,GEAR-5
DM32	614 310 6142	SPRING,COMP,FOR BACK RUSH
DM33	614 310 2052	GEAR.,GEAR-4
DM34	412 057 8304	SPECIAL WASHER,FOR GEAR FIX
DM35	614 310 2038	GEAR.,GEAR-2
DM36	614 310 2045	GEAR.,GEAR-3
DM37	411 106 7709	SCR PAN PCS 1.7X2.5, SLED MOTOR FIX
DM38	645 041 0109	ASSY,MOTOR,SLED MOTOR
DM39	411 021 1806	SCR S-TPG BIN 2.6X10,BASE FIX
DM40	411 092 0906	WASHER Z 2.6X10X0.5,BASE FIX
DM41	614 310 6128	SPACER,MECHA, BASE MECHA FLOATING
DM42	614 310 2137	MOUNTING,BASE MECHA MOUNTING
DM43	411 020 9803	SCR S-TPG BRZ+FLG 3X6, CHASSIS SUB FIX
DM44	614 310 5060	ASSY,PWB MECHA-M,MOTOR PWB

MECHA-SW P.W.BOARD ASSY

REF.NO.	PART NO.	DESCRIPTION
DM20	614 310 6869	ASSY,PWB MECHA-SW,SW PWB
S011	645 032 2044	SWITCH,LEVER,CHUCK END SW
S012	645 032 2051	SWITCH,LEVER,TRAY OPEN END

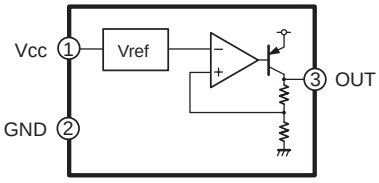
IC BLOCK DIAGRAM & DESCRIPTION

IC101 24LC16BT/SN(EEPROM)(MPEG)

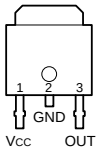


Name	Function
VSS	Ground
SDA	Serial Address/Data I/O
SCL	Serial Clock
WP	Write Protect Input
VCC	+2.5V to 5.5V Power Supply
A0,A1,A2	No Internal Connection

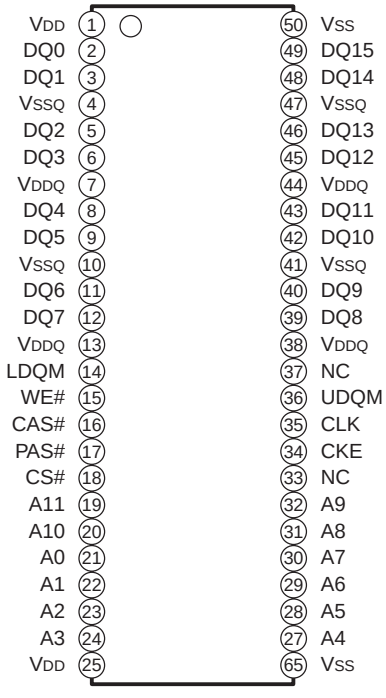
IC103 BA25BC0FP(VOLTAGE REGULATOR)



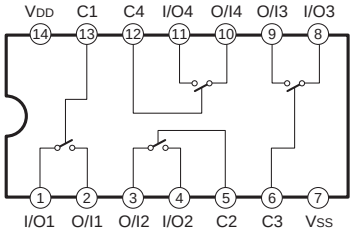
IC104,900 BA033FP(REGULATER)



IC110,111,117 EM63615TS-8(SDRAM)

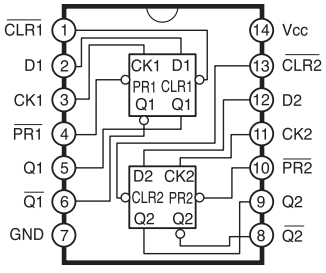


IC101BU4066BCF(ANALOG SW)(DVD)



IC105 74VHC74MTC(FLIP FLOP)

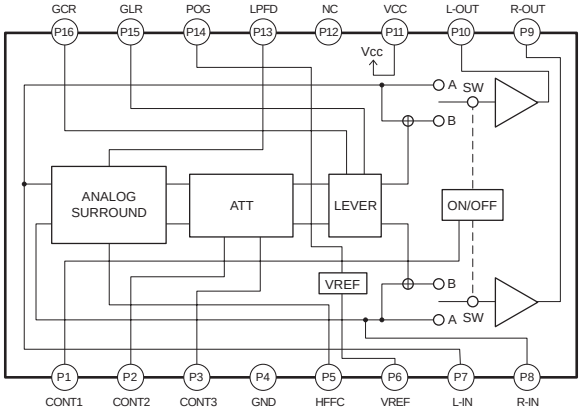
Connection Diagram



Truth Table

Inputs				Output		Function
$\overline{CLR}$	$\overline{PR}$	D	CK	Q	$\overline{Q}$	
L	H	X	X	L	H	Clear
H	L	X	X	H	L	Preset
L	L	X	X	H(Note 1)	H(Note 1)	
H	H	L	↑	L	H	
H	H	H	↑	H	L	
H	H	X	↓	Qn	Qn	No Change

IC413 LA2615(SURROUND)



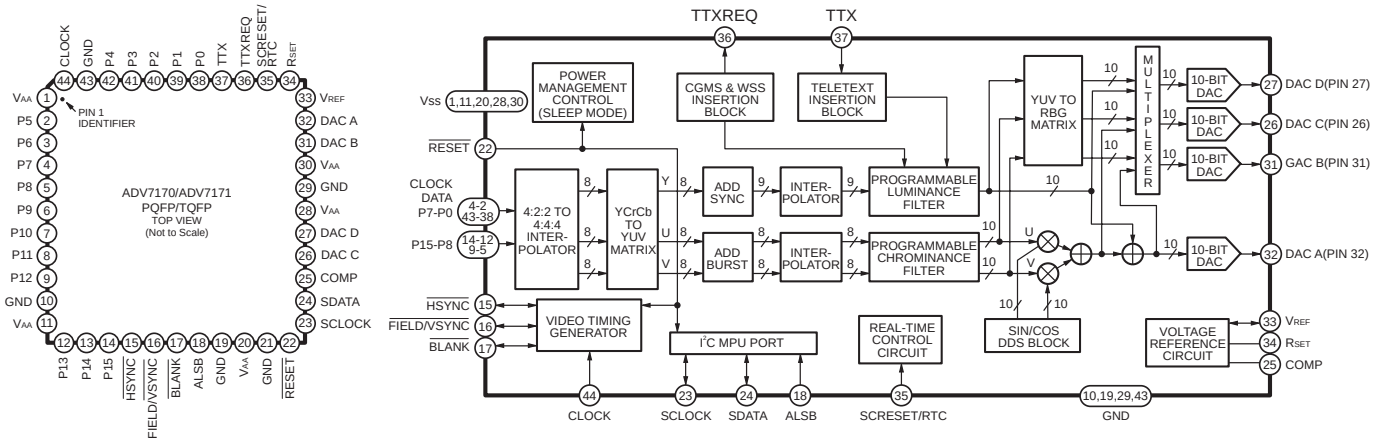
IC BLOCK DIAGRAM & DESCRIPTION

IC110,111,117 EM63615TS-8(SDRAM)

Symbol	Type	Description
CLK	Input	**Clock:** CLK is driven by the system clock. All SDRAM input signals are sampled on the positive edge of CLK. CLK also increments the internal burst counter and controls the output registers.
CKE	Input	**Clock Enable:** CKE activates(HIGH) and deactivates(LOW) the CLK signal.If CKE goes low synchronously with clock(set-up and hold time same sa other inputs), the internal clock is suspended from the next clock cycle and the state of output and burst address is frozen as long as the CKE remains low. When both banks are in the idle state, deactivating the clock controls the entry to the Power Down and Self Refresh modes. CKE is synchronous except after the device enters Power Down and Self Refresh modes, where CKE becomes asynchronous until exiting the same mode. The input buffers, including CLK, are disabled during Power Down and Self Refresh modes, providing low standby power.
A11	Input	**Bank Select:** A11(BS) defines to which bank the BankActivate, Read, Write, or BankPrecharge command is being applied.
AC-A10	Input	**Address Inputs:** A0-A10 are sampled during the BankActivate command (row address A0-A10 and Read/Write command (column address A0-A7 with A10 defining Auto Precharge) to select one location out of the 256K available in the respective bank. During a Precharge command, A10 is sampled to determine if both banks are to be precharged (A10-HIGT). The address inputs also provide the op-code during a Mode Register Set command.
CS#	Input	**Chip Select:** CS# enables (sampled LOW) and disables (sampled HIGH) the command decoder. All commands are masked when CS# is sampled HIGH. CS# provides for external bank selection on systems with multiple banks. It is considered part of the command code.
RAS#	Input	**Row Address Strobe:** The RAS# signal defines the operation commands in conjunction with the CAS# and WE# signals and is latched at the positive edges of CLK. When RAS# and CS# are asserted "LOW" and CAS# is asserted "HIGH," either the BankActivate command or the Precharge command is selected by the WE# signal. When the WE# is asserted "HIGH," the BankActivate command is selected and the bank designated by BS is turned on to the active state. When the WE# is asserted "LOW," the Precharge command is selected and the bank designated by BS is switched to the idle state after the precharge operation.
CAS#	Input	**Column Address Strobe:** The CAS# signal defines the operation commands in conjunction with the RAS# and WE# signals and is latched at the positive edges of CLK. When RAS# is held "HIGH" and CS# is asserted "LOW," the column access is started by asserting CAS#"LOW." Then, the Read or Write command is selected by asserting WE# "LOW" or "HIGH."
WE#	Input	**Write Enable:** The WE# signal defines the operation commands in conjunction with the RAS# and CAS# signals and is latched at the positive edges of CLK. The WE# input is used to select the BankActivate or Precharge command and Read or Write command.
LDQM, UDQM	Input	**Data Input/Output Mask:** LDQM and HDQM are byte specific, nonpersistent I/O buffer controls. The I/O buffers are placed in a high-z state when DQM is sampled HIGH. Input data is masked when DQM is sampled HIGH during a write cycle. Output data is masked (two-clock latency) when DQM is sampled HIGH during a read cycle. UDQM masks DQ15-DQ8, and LDQM masks DQ7-DQ0.
DQC-DQ15	Input / Output	**Data I/O:** The DQ0-15 input and output data are synchronized with the positive edges of CLK. The I/Os are byte-maskable during Reads and Writes.
NC	-	**No Connect:** These pins should be left unconnected.
V_{DDQ}	Supply	**DQ Power:** Provide isolated power to DQs for improved noise immunity.(3.3V±0.3V)
V_{SSQ}	Supply	**DQ Ground:** Provide isolsted ground to DQs for improved noise immunity.(0V)
V_{DD}	Supply	**Power Supply:** +3.3V±0.3V
V_{SS}	Supply	**Ground**

IC BLOCK DIAGRAM & DESCRIPTION

IC102 ADV7170KSU(VIDEO ENCODER)



PIN FUNCTION DESCRIPTIONS

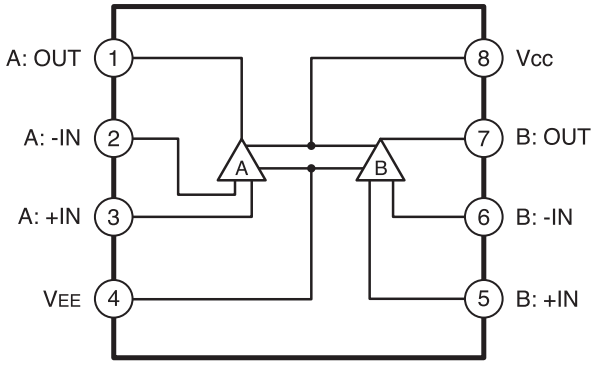
Mnemonic	Input/ Output	Function
P15-P0	I	8-Bit 4:2:2 Multiplexed YCrCb Pixel Port (P7-P0) or 16-Bit YCrCb Pixel Port (P15-P0). P0 represents the LSB.
CLOCK	I	TTL Clock Input. Requires a stable 27 MHz reference Clock for standard operation. Alternatively, a 24.52 MHz (NTSC) or 29.5 MHz (PAL) can be used for square pixel operation.
$\overline{\text{HSYNC}}$	I/O	$\overline{\text{HSYNC}}$ (Modes 1 and 2) Control Signal. This pin may be configured to output (Master Mode) or accept (Slave Mode) Sync signals.
FIELD/$\overline{\text{VSYNC}}$	I/O	Dual Function FIELD (Mode 1) and $\overline{\text{VSYNC}}$ (Mode 2) Control Signal. This pin may be configured to output (Master Mode) or accept (Slave Mode) these control signals.
$\overline{\text{BLACK}}$	I/O	Video Blanking Control Signal. The pixel inputs are ignored when this is Logic Level "0." This signal is optional.
SCRESET/RTC	I	This pin can be configured as an input by setting MR22 and MR21 of Mode Register 2. It can be configured as a subcarrier reset pin, in which case a high-to-low transition on this pin will reset the subcarrier to Field 0. Alternatively, it may be configured as a Real-Time Control (RTC) input.
V_{REF}	I/O	Voltage Reference Input for DACs or Voltage Reference Output (1.235 V).
R_{SET}	I	A 150 Ω resistor connected from this pin to GND is used to control full-scale amplitudes of the video signals.
COMP	O	Compensation Pin. Connect a 0.1 µF Capacitor from COMP to VAA. For Optimum Dynamic Performance in low power mode, the value of the COMP capacitor can be lowered to as low as 2.2 nF.
DAC A	O	PAL/NTSC Composite Video Output. Full-Scale Output is 180 IRE (1286 mV) for NTSC and 1300 mV for PAL.
DAC C	O	RED/S-Video C/V Analog Output.
DAC D	O	GREEN/S-Video Y/Y Analog Output.
DAC B	O	BLUE/Composite/U Analog Output.
SCLOCK	I	MPU Port Serial Interface Clock Input.
SDATA	I/O	MPU Port Serial Data Input/Output.
ALSB	I	TTL Address Input. This signal set up the LSB of the MPU address.
$\overline{\text{RESET}}$	I	The input resets the on chip timing generator and sets the ADV7170/ADV7171 into default mode. This is NTSC operation, Timing Slave Mode 0, 8 Bit Operation, 2 x Composite and S Video out and DAC B powered ON and DAC D powered OFF.
TTX/V_{AA}	I	Teletext Data/Defaults to VAA When Teletext not Selected (enables backward compatibility to ADV7175/ADV7176).
TTXREQ/GND	O	Teletext Data Request Signal/ Defaults to GND when Teletext not Selected (enables backward compatibility to ADV7175/ADV7176).
V_{AA}	P	Power Supply (+3V to +5V).
GND	G	Ground Pin.

IC BLOCK DIAGRAM & DESCRIPTION

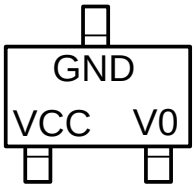
IC131 PCM1723(D/A CONVERTER)

No.	Name	I/O	DESCRIPTION
1	XT1	-	27 MHz x'tal oscillate input or external oscillator
2	SCKO	O	System clock output
3	VCP	-	PLL power source
4	NC	-	N.C
5	MCKO	O	Master clock buffer output
6	ML	I	Software control latch
7	MC	I	Software control clock
8	MD	I	Software control data
9	RSTB	I	Reset
10	ZERO	O	Zero data flag output
11	VOUTR	O	Rch. Analogue power output
12	GNDA	-	Analogue ground
13	VCA	-	Analogue power source +5V
14	VOUTL	O	Lch. Analogue power output
15	CAP	-	Output amplifier common
16	BCKIN	I	Bit clock input for data
17	DIN	I	Data input
18	LRCIN	I	Basic sampling clock input
19	NC	-	N.C
20	RSV	-	N.C
21	VDD	-	Digital power source 5V
22	GNDD	-	Digital ground
23	GNDP	-	PLL ground
24	XTO	-	Crystal oscillator

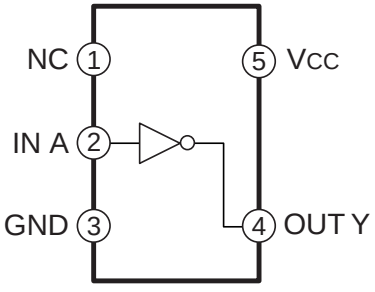
IC132 NJM4560(OP AMP)



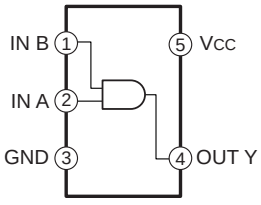
IC130 BMR-0302E(RESET)



IC136,504 TC7SHU04FU(INVERTER)

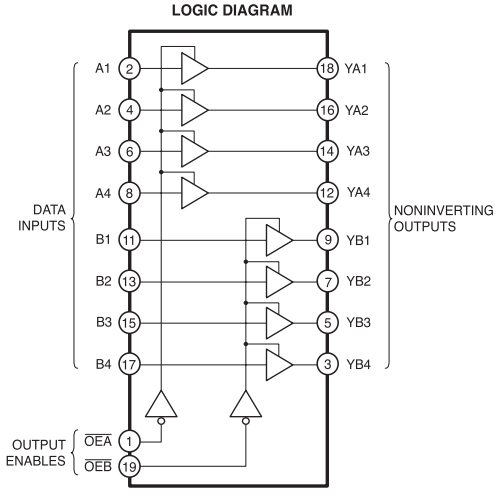


IC133,135,137 NC7SZ08P5(2 INPUT AND GATE)

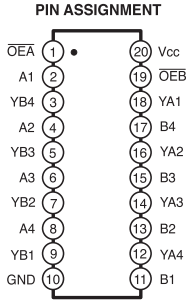


IC112,113 74VHC244MTC (LINE DRIVER)

LOGIC DIAGRAM



PIN ASSIGNMENT

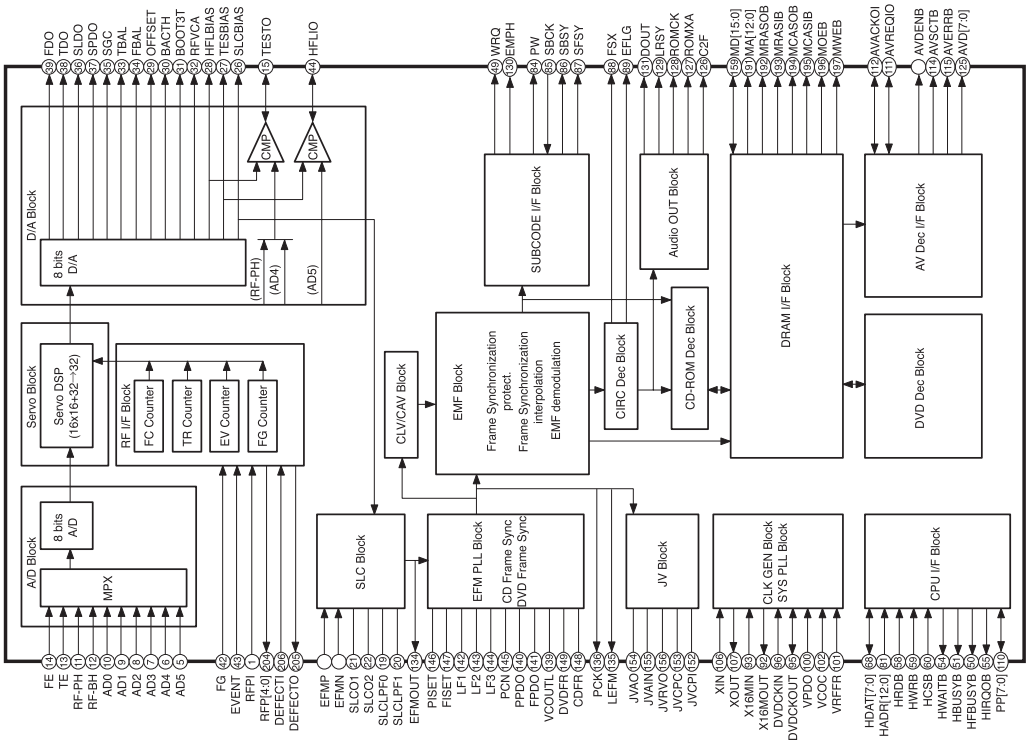


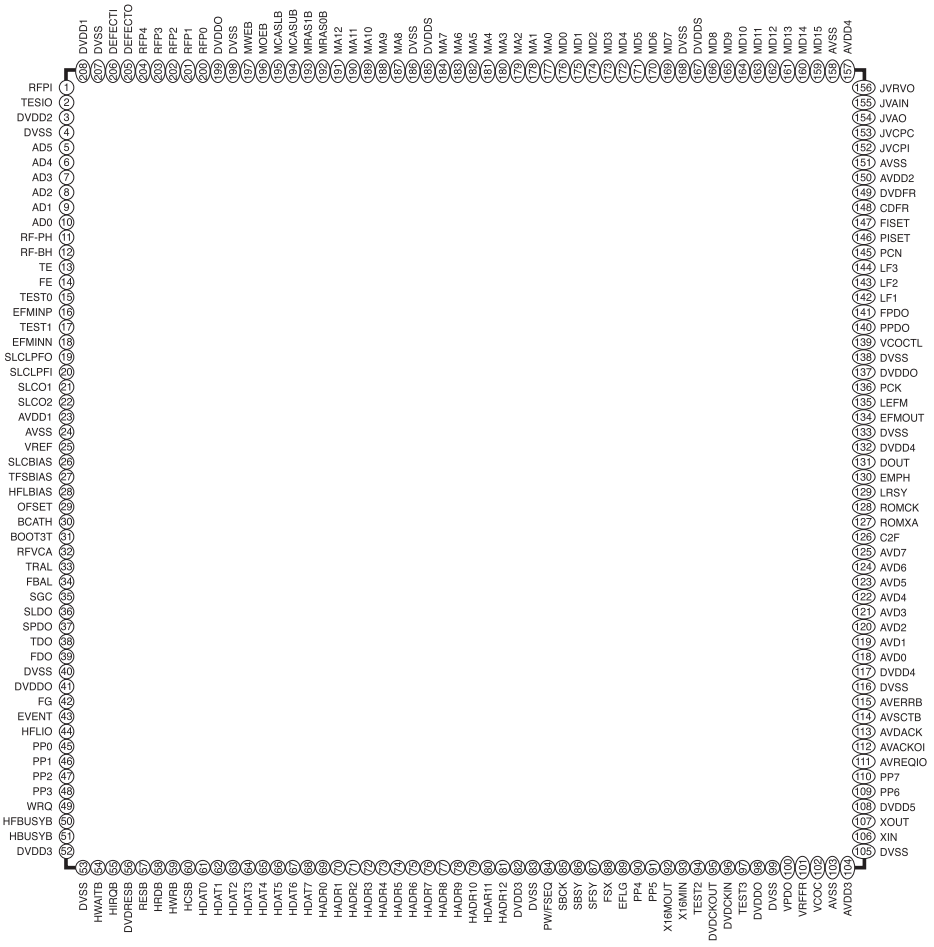
FUNCTION TABLE

INPUTS		OUTPUTS
$\overline{OEA}$, $\overline{OEB}$	A, B	YA, YB
L	L	L
L	H	H
H	X	Z

IC BLOCK DIAGRAM & DESCRIPTION

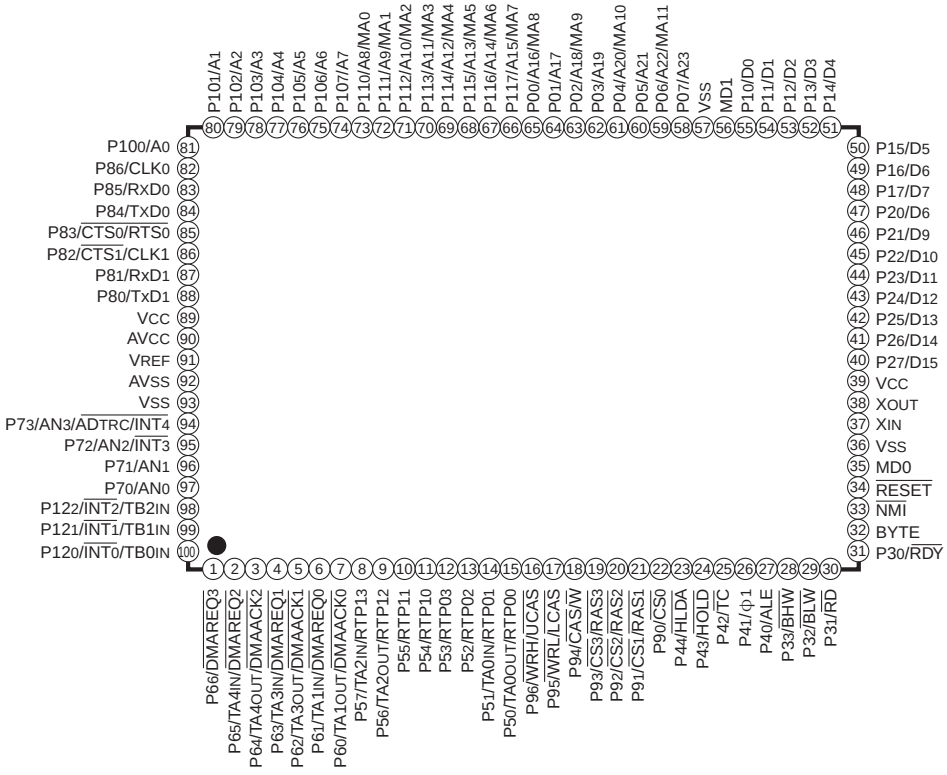
IC200 LC78660W-D(DVD/CD SERVO)





IC BLOCK DIAGRAM & DESCRIPTION

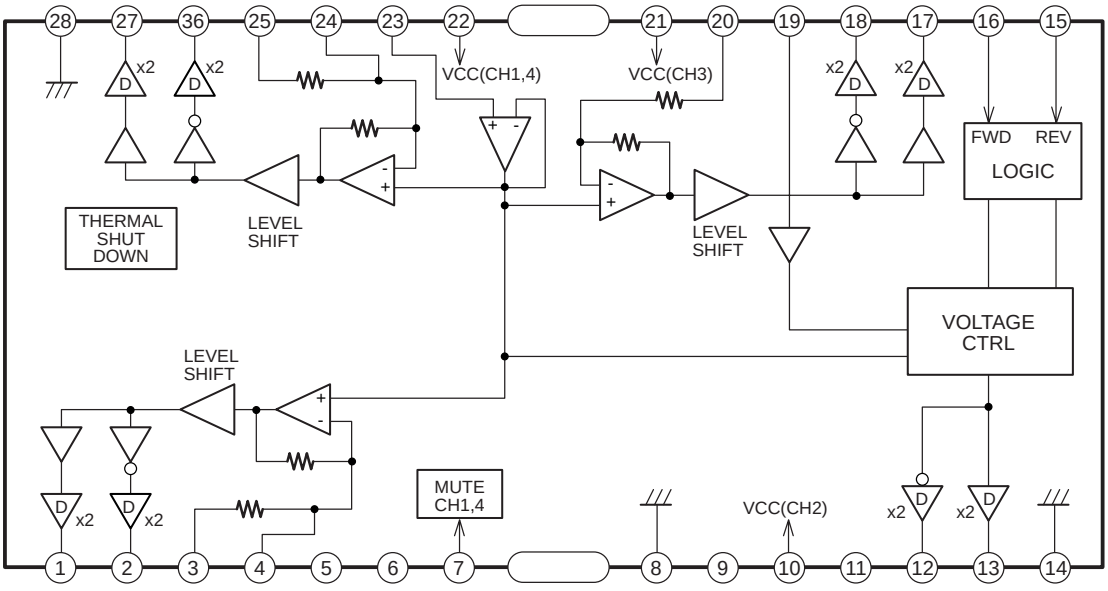
IC500 M37920FCCGP(MICOM)



NAME	DESCRIPTION	I/O	FUNCTION
VCC,VSS	Power source	I	Vcc:applied 5V±0.5V Vss:applied0V
MD0	MD0	I	Prosessor mode switch. Connect to Vss when songle chip modeand memory extension mode.
MD1	MD1	I	Connect to Vss.
RESET	Reset input	I	Reset:low level applied.
XIN	Clock input	I	Clock oscillation circuit in/output. connect ceramic or crystal resonator between Xin and Xout. Use external clock input connect Xin and Xout open.
XOUT	Clock output	O	
BYTE	External data bus width switch input	I	Memory extension mode or micro prosessor mode: Select which external data bus width 8bits and 16bits. When 16 bits at low and 8bits at high.
AVCC,AVSS	Analogue power source	I	Power sourse for A-D converter. External connect AVcc to Vcc and AVss to Vss.
VREF	Voltage reference	I	Voltage reference for A-D converter.
P00～P07	Input/output port P0	I/O	Single chip mode:port P0 is in/output for 8 bits. Memory extension or micro-processor mode:address(A16～A23)output. When DRAM space access:multiplex address(MA8～MA11)output.
P10～P17	Input/output port P1	I/O	Single chip mode:same function of port P0. Memory extension or micro-processor mode:in/output under data 8 bits (D0～D7)
P20～P27	Input/output port P2	I/O	Single chip mode,memory extension ormicro prosessor mode(BYTE is high & use external data bus width is 8 bits width):same function of port P0. Memory extension or micro-processor mode(BYTE is low & use external data width is 16 bits width):in/output high data 8 bits(A8～D15).
P30～P33	Input/output port P3	I/O	Single chip mode:same fanction of P0. memory extension mode:P30 is in/output port andRDY outout at regster set. Each P31,P32 and P33 are RD,BLW and BHW output.
P40～P44	Input/output port P4	I/O	Single chip mode:same fanction of P0. memory extension mode:P40～P44 are in/output and ALE,φ1,TC,HOLD,HLDA in/output at register set. Micro prosessor made:P40,P41 are output ofALE,φ1, and in/output at resister set. P42 is in/output and TC output at resister set. P43 is HOLD output. P44 is HLDA output.
P50～P57	Input/output port P5	I/O	Single chip mode:same fanction P0,timer A1,A2 in/output and real-time output.
P60～P66	Input/output port P6	I/O	Single chip mode:same fanction P0 and timer A1,A3,A4 in/output. DMA requirement input and DMA answer signal.
P70～P73	Input/output port P7	I/O	Single chip mode:same fanction and A-D converter input. P72,P73 are INT3,INT4 input.
P80～P86	Input/output port P8	I/O	Single chip mode:same fanction P0 and UART0,UART1 input.
P90～P96	Input/output port P9	I/O	Single chip mode:same fanction P0,chip select CS1～CS3 output and DRAM control signal output.
P100～P107	Input/output port P10	I/O	Single chip mode:same fanction P0. Memory extension or micro prosessor mode:address(A0～A7)output.
P110～P117	Input/output port P11	I/O	Single chip mode:same fanction P0. Memory extension or micro prosessor mode:address(A8～A15)output and multiplex address (MA0～MA7)output when DRAM space access.
P120～P122	Input/output port P12	I/O	Single chip mode:same fanction P0 and timer B0,B1,B2 input.
NMI	Non maskable interrupt	I	Non maskable interrupt.

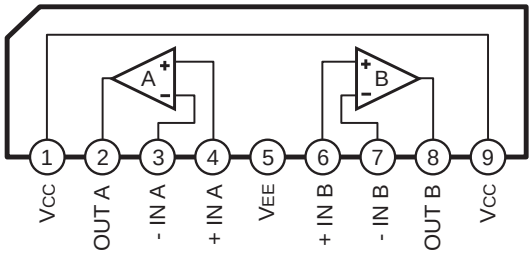
IC BLOCK DIAGRAM & DESCRIPTION

IC601 BA5937AFP(Power Driver)(DVD)

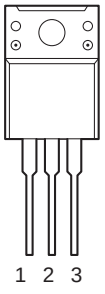


PIN NO.	NAME	DESCRIPTION	PIN NO.	NAME	DESCRIPTION
1	OUT-1	DRIVER CH1 (-)	15	REV	LOARDING REV
2	OUT-2	DRIVER CH1 (+)	16	FWD	LOARDING FWD
3	IN 1-1	DRIVER CH1	17	OUT3-1	DRIVER CH3 (-)
4	IN 1-2	DRIVER CH1 GAIN	18	OUT3-2	DRIVER CH3 (+)
5	NC	NOT USED	19	LD IN	LOARDING
6	NC	NOT USED	20	IN 3	DRIVER CH3
7	MUTE	CH1,4 MUTE CONTROL	21	VCC3	VCC(CH3)
8	GND	GND	22	VCC1	VCC(CH1,4)
9	NC	NOT USED	23	Vref IN	BIAS
10	VCC2	VCC(CH2)	24	IN 4-2	DRIVER CH4 GAIN
11	NC	NOT USED	25	IN 4-1	DRIVE CH4
12	OUT2-2	DRIVER CH2 LOARDING (+)	26	OUT4-2	DRIVER CH4 (+)
13	OUT2-1	DRIVER CH2 LOARDING (-)	27	OUT4-1	DRIVER CH4 (-)
14	GND	SUB STRAIGHT GND	28	GND	SUB STRAIGHT GND

IC473,474 KIA4558(OP AMP)



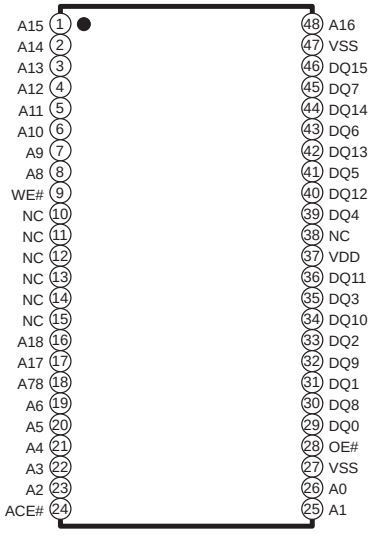
IC490,491,495 KIA7805API(Regulator)

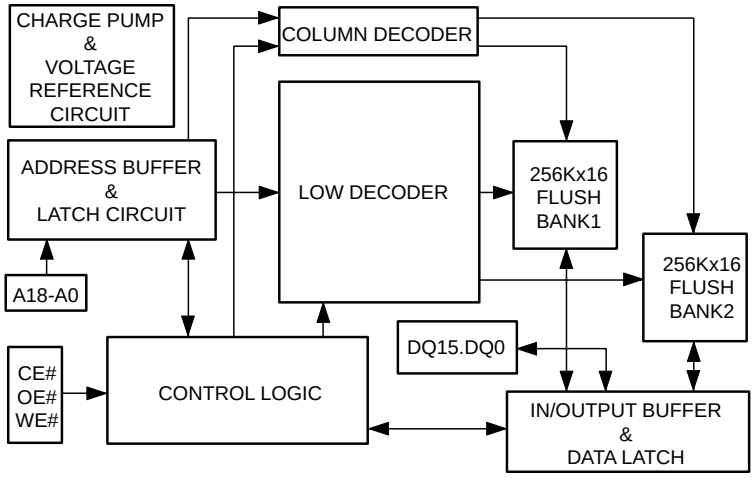


1. INPUT
2. COMMON
3. OUTPUT

IC BLOCK DIAGRAM & DESCRIPTION

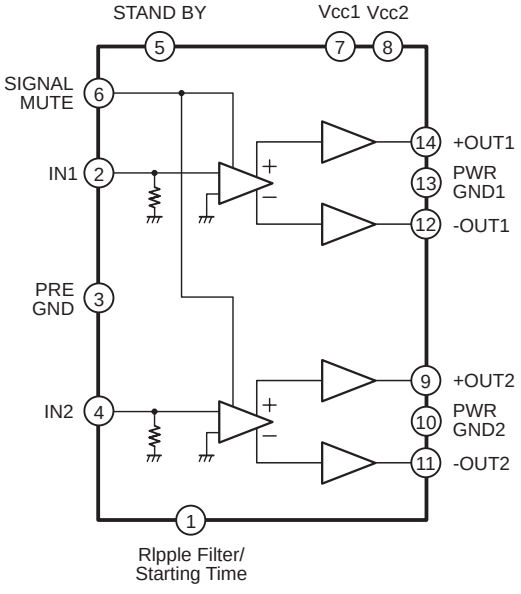
IC118 LE28DW8102T-90-MPB(FLASH MEMORY)





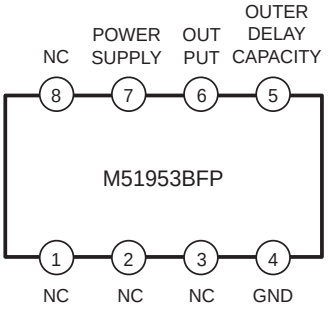
STM.	NAME	FUNCTION
A18	Bank Selective Address	Selects bank 1 when "L" and bank 2 when "H".
A17-A0	Flush Bank Address	Sapply address for flush bank.
A17-A15	Flush Bank Block Address	Select flush bank for erease.
A17-A10	Flush Bank Sector Sddress	Select flush bank sector for erease.
DQ15-DQ0	Data Input/Output	To output data during read cycle and receive input data during write cycles. Data is internaliy latched during a writecycle. The output are high inpedance when OE#,CE# is high.
CE#	Chip Enable	To activate the flush bank when CE# is low.
OE#	Output Enable	To activate the data output buffer .
WE#	Write Enable	To control the write, erease and program.
VDD	Power Supply	207V~3.6V supply.
GND	Ground	
NC	No Connection	Not connect to internal chip.

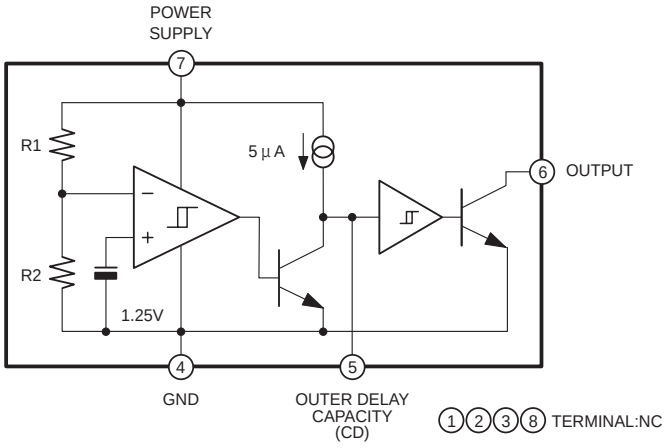
IC475 LA4663)POWER IC)



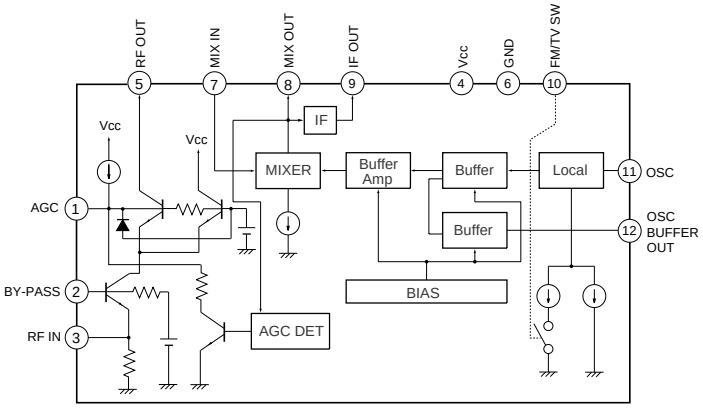
IC BLOCK DIAGRAM & DESCRIPTION

IC502 M51953BFP(RESET)

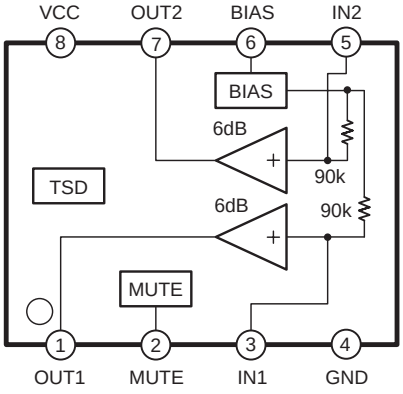




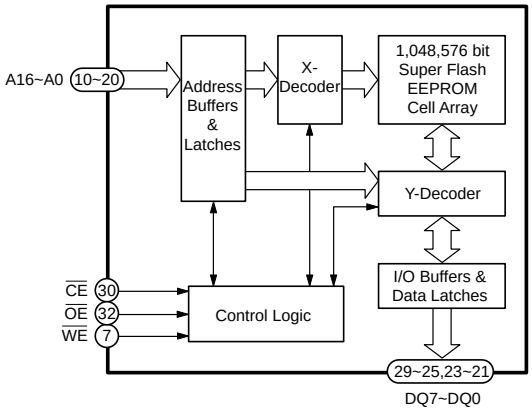
IC211 TA8176SN(FM Frontend)



IC437 BH3544F

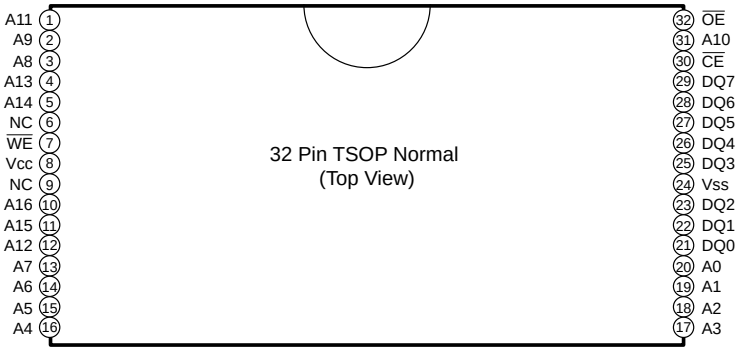


IC550 LE28C1001ATS(FLASH MEMORY)



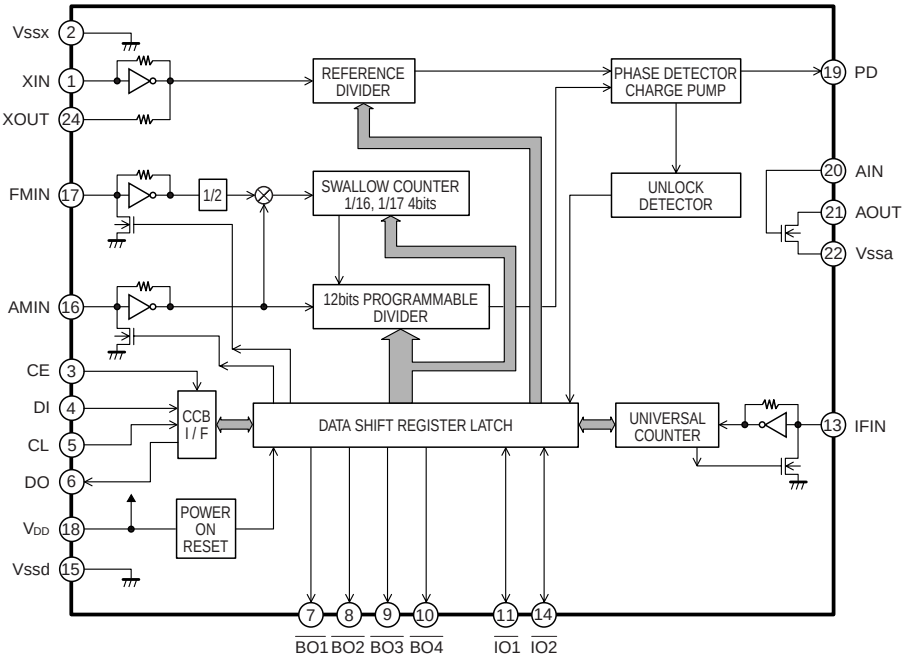
Pin Name

A16-A0	Address Inputs
DQ7-DQ0	Data Input/Output
$\overline{CE}$	Chip Enable
$\overline{OE}$	Output Enable
$\overline{WE}$	Write Enable
Vcc	Power Supply
Vss	Ground
NC	No Connection

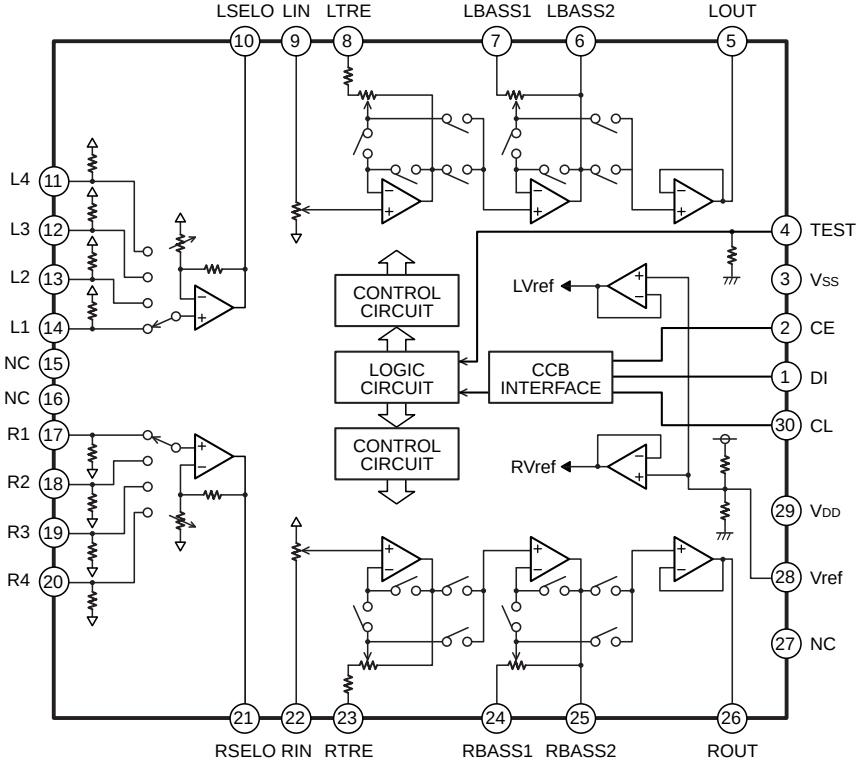


IC BLOCK DIAGRAM & DESCRIPTION

IC241 LC7212M-D(Pll Synthesizer)

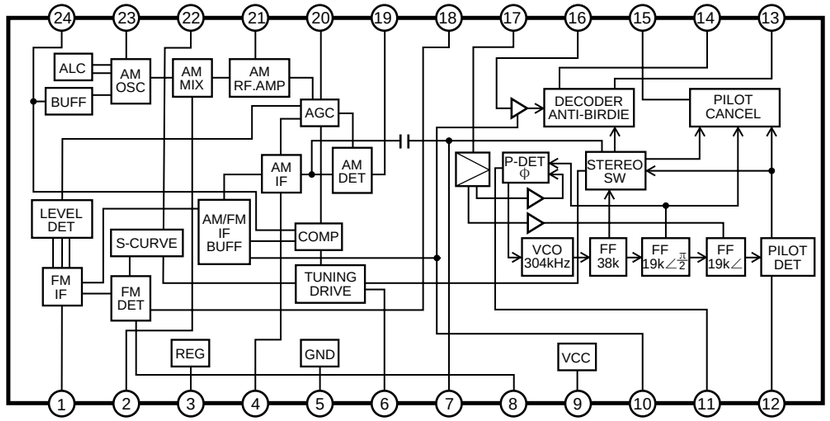


IC450 LC75342M(2 Band Equalizer)

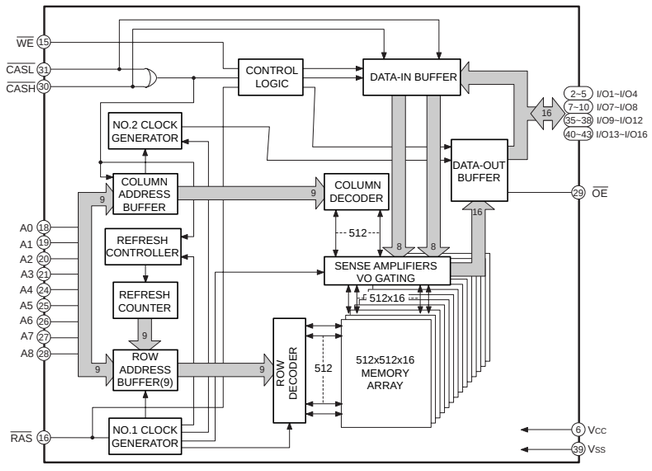


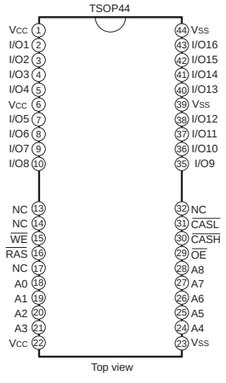
IC BLOCK DIAGRAM & DESCRIPTION

IC231 LA1844ML(AM/FM-ZF/MPX)



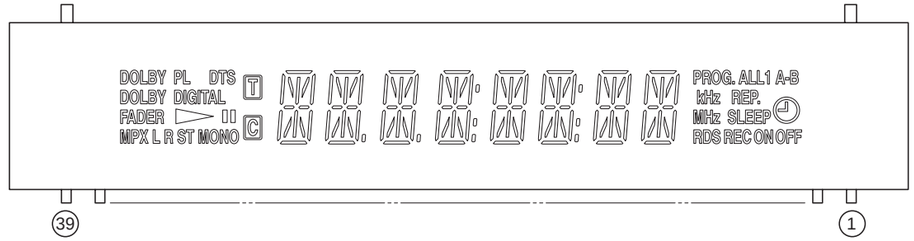
IC201 T224162B(DRAM)





PIN NO.	SYM.	TYPE	DESCRIPTION
16~19,22~26	A0~A8	Input	Address Input
14	$\overline{RAS}$	Input	Row Address Strobe
28	$\overline{CASH}$	Input	Column Address Stlobe /Upper Byte Control
29	$\overline{CASL}$	Input	Column Address Stlobe /Lower Byte Control
13	$\overline{WE}$	Input	Write Enable
27	$\overline{OE}$	Input	Output Enable
2~5,6~10,31~34,36~39	I/O1-I/O16	Input/Output	Data Input /Output
1,6,20	Vcc	Supply	Power, 5V
21,35,40	Vss	Ground	Ground
11,12,15,30	NC	-	No Connec

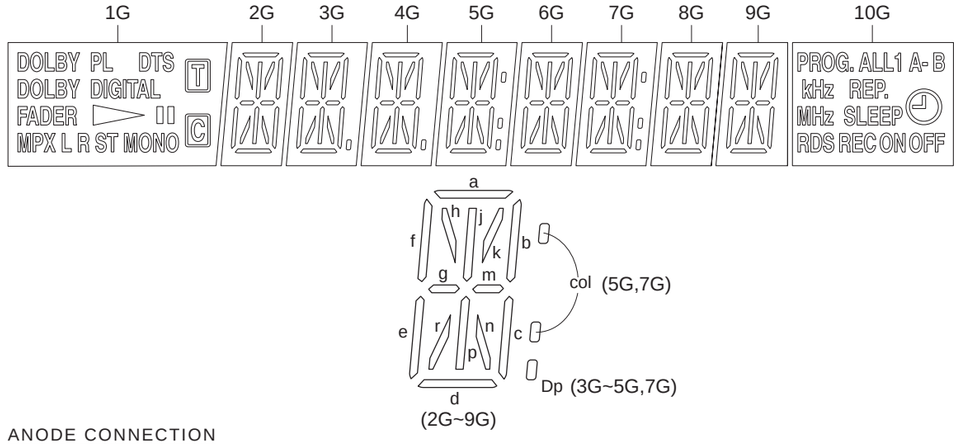
FL601 VACUUM FLUORESCENT DISPLAY



PIN CONNECTION

PIN NO.	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
CONNECTION	F2	F2	NP	NP	1G	2G	3G	4G	5G	6G	7G	8G	9G	10G	NX	NX	NX	NX	NX	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13	P14	P15	P16	NP	NP	F1	F1

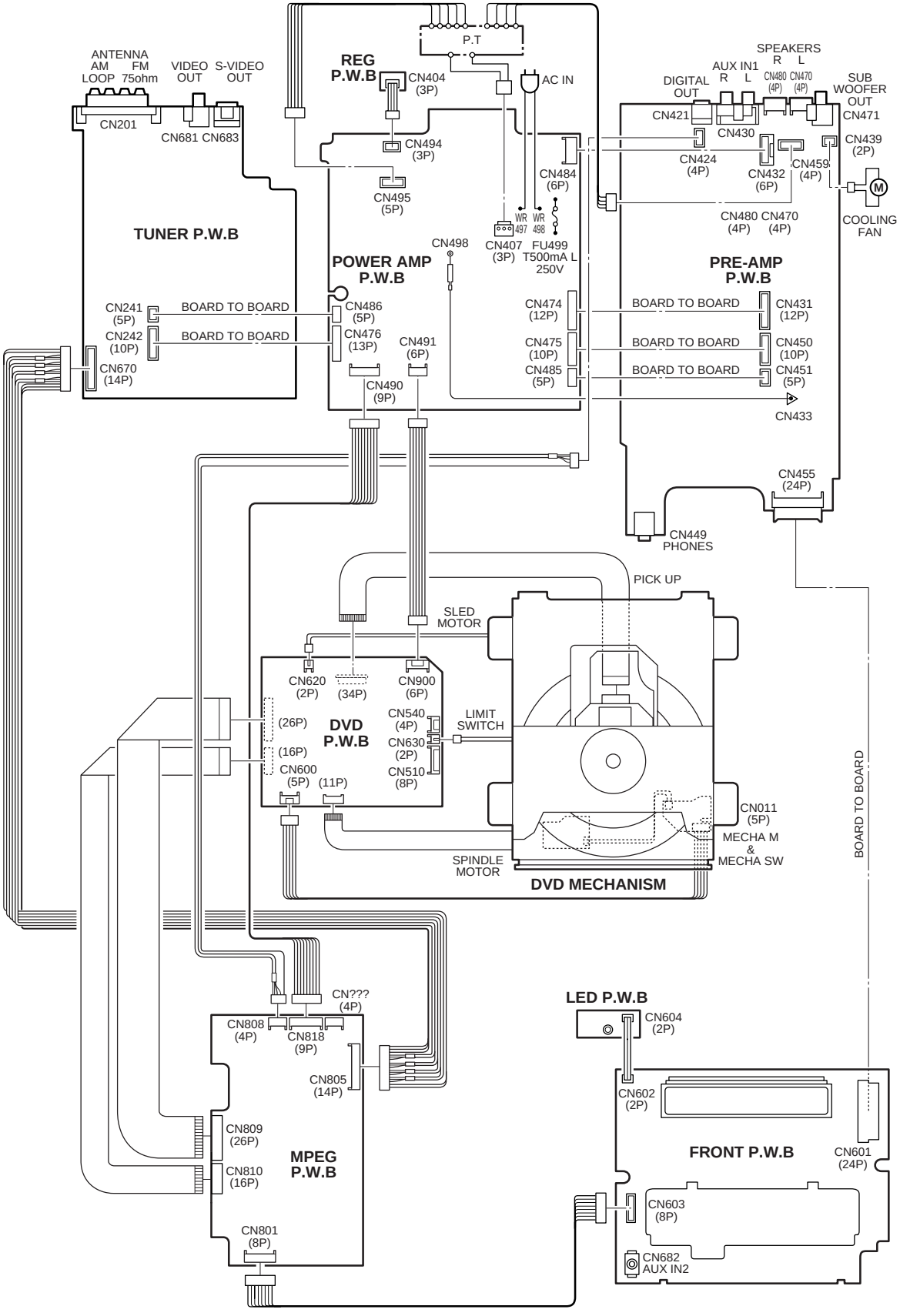
NOTE 1) F1,F2 ------ Filament
2) NP ---------- No pin
3) NX ---------- No extent pin
4) DL ---------- Datum Line
5) 1G~10G --- Grid



ANODE CONNECTION

	1G	2G	3G	4G	5G	6G	7G	8G	9G	10G
P1	DOLBY PL	a	a	a	a	a	a	a	a	PROG.
P2	DTS	b	b	b	b	b	b	b	b	ALL
P3	DOLBY DIGITAL	h	h	h	h	h	h	h	h	1
P4	FADER	j	j	j	j	j	j	j	j	A-
P5	▷	k	k	k	k	k	k	k	k	B
P6	II	f	f	f	f	f	f	f	f	REP.
P7	MPX	g	g	g	g	g	g	g	g	kHz
P8	L	m	m	m	m	m	m	m	m	MHz
P9	R	c	c	c	c	c	c	c	c	RDS
P10	ST	r	r	r	r	r	r	r	r	REC
P11	MONO	p	p	p	p	p	p	p	p	SLEEP
P12	T	n	n	n	n	n	n	n	n	◴
P13	C	e	e	e	e	e	e	e	e	ON
P14	-	d	d	d	d	d	d	d	d	OFF
P15	-	-	-	-	col	-	col	-	-	-
P16	-	-	Dp	Dp	Dp	-	Dp	-	-	-

WIRING CONNECTION



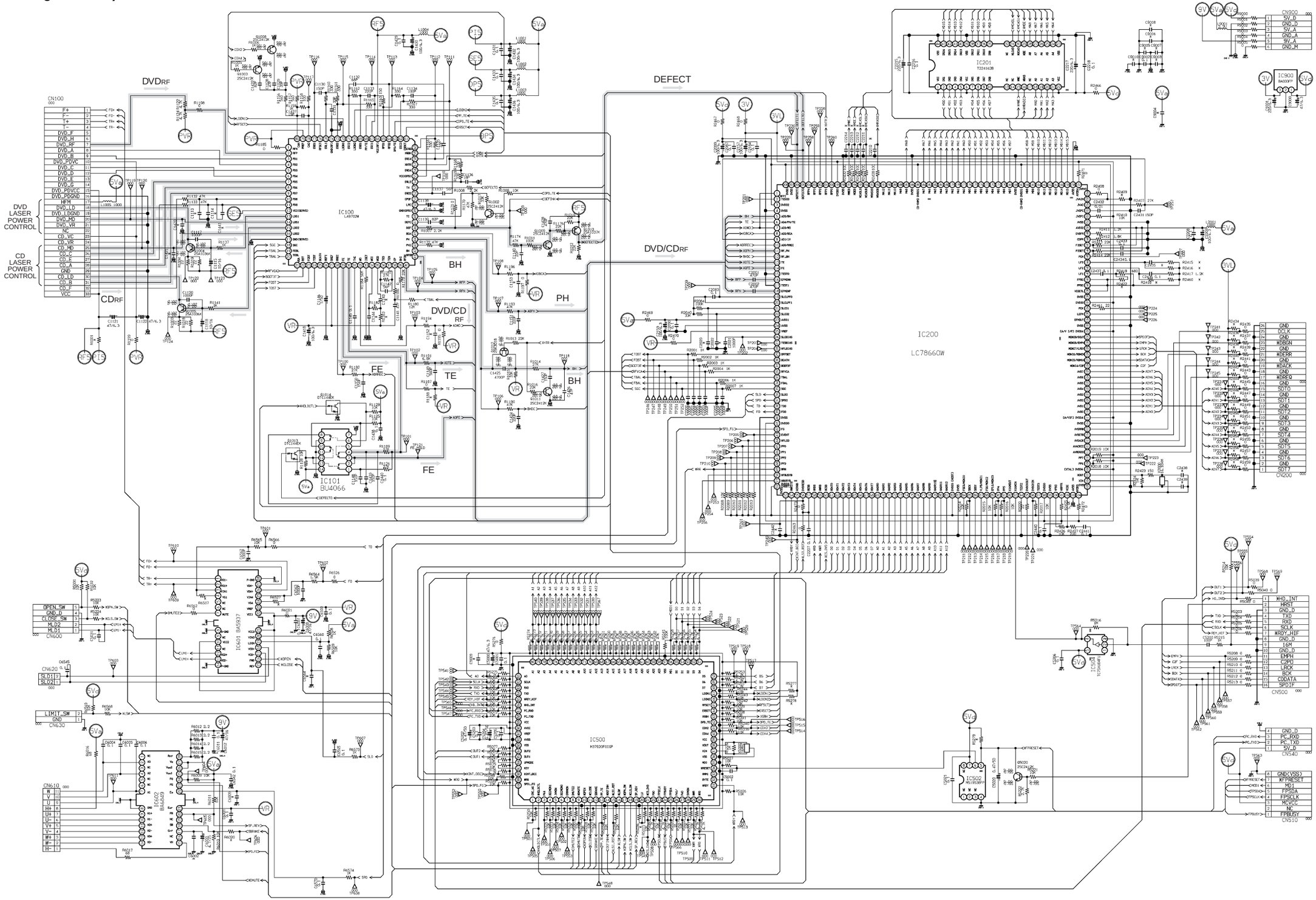
SANYO

SANYO Technosound Co., Ltd.
Osaka, Japan

Dec. / '00 / 1150 BB Printed in Japan

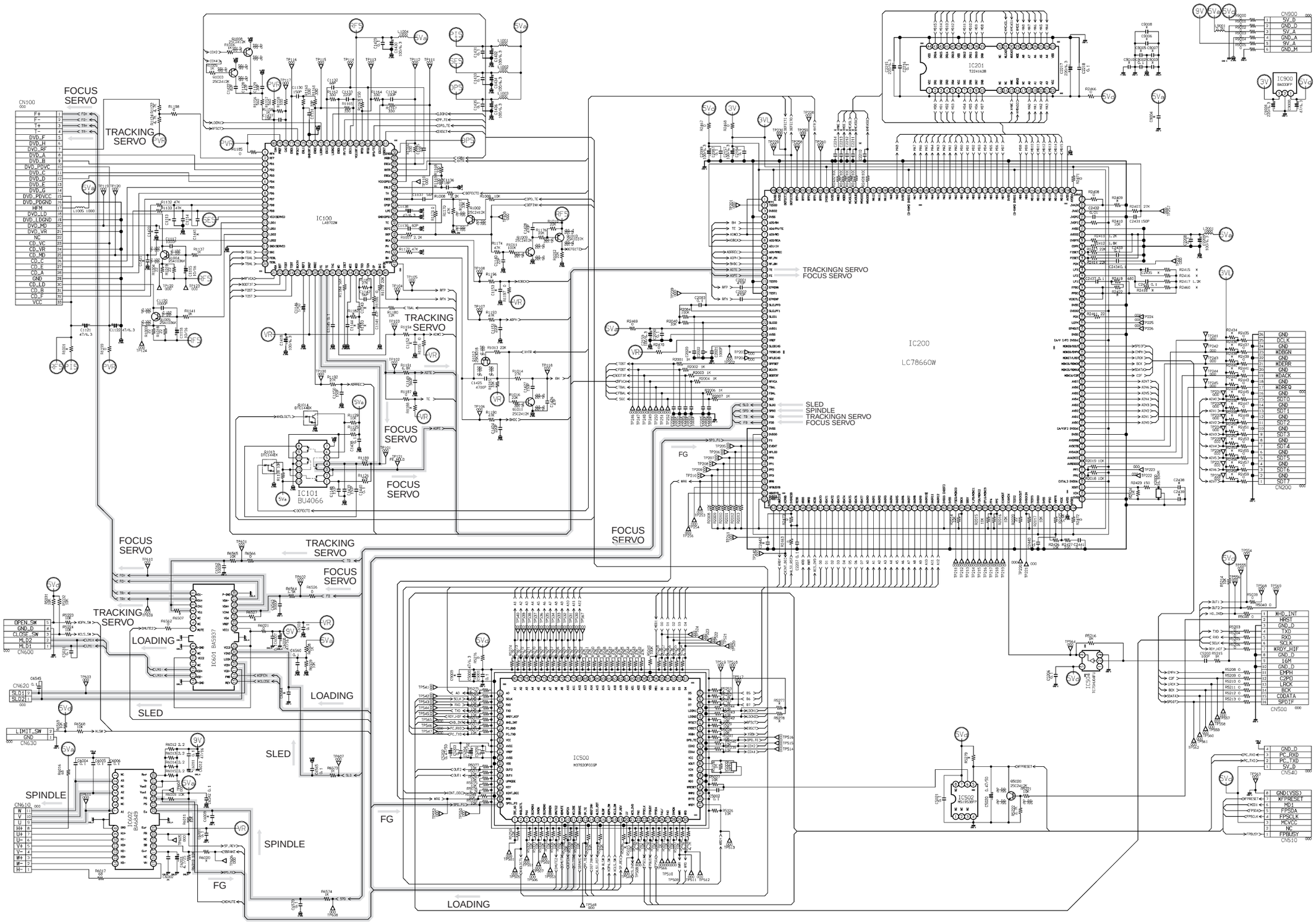
DVD P.W.BOARD OPERATION(SCHEMATIC DIAGRAM FOR SIGNAL CHECK)

(This is a basic signal check)



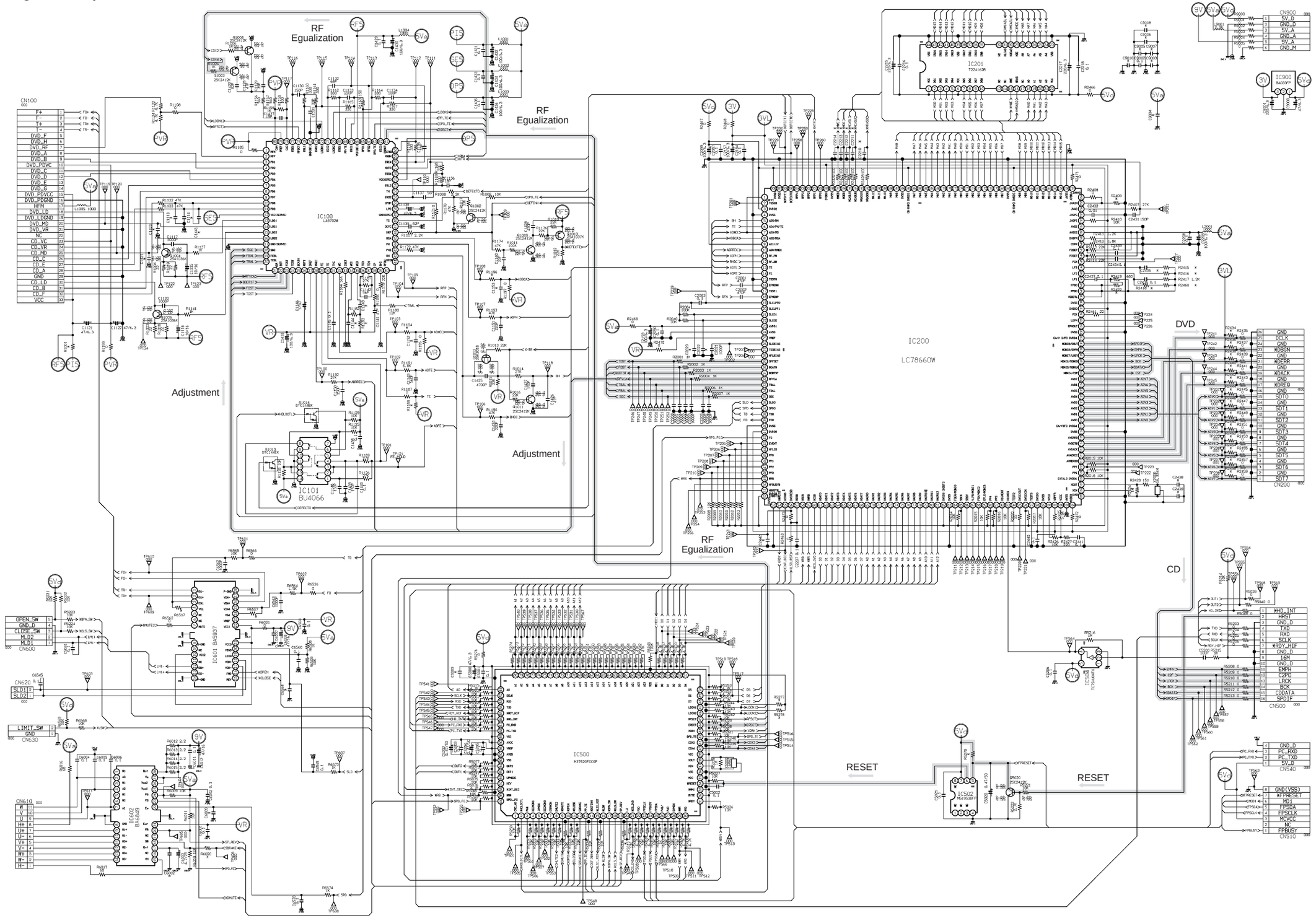
DVD P.W.BOARD OPERATION(SCHEMATIC DIAGRAM FOR SIGNAL CHECK)

(This is a basic signal check)



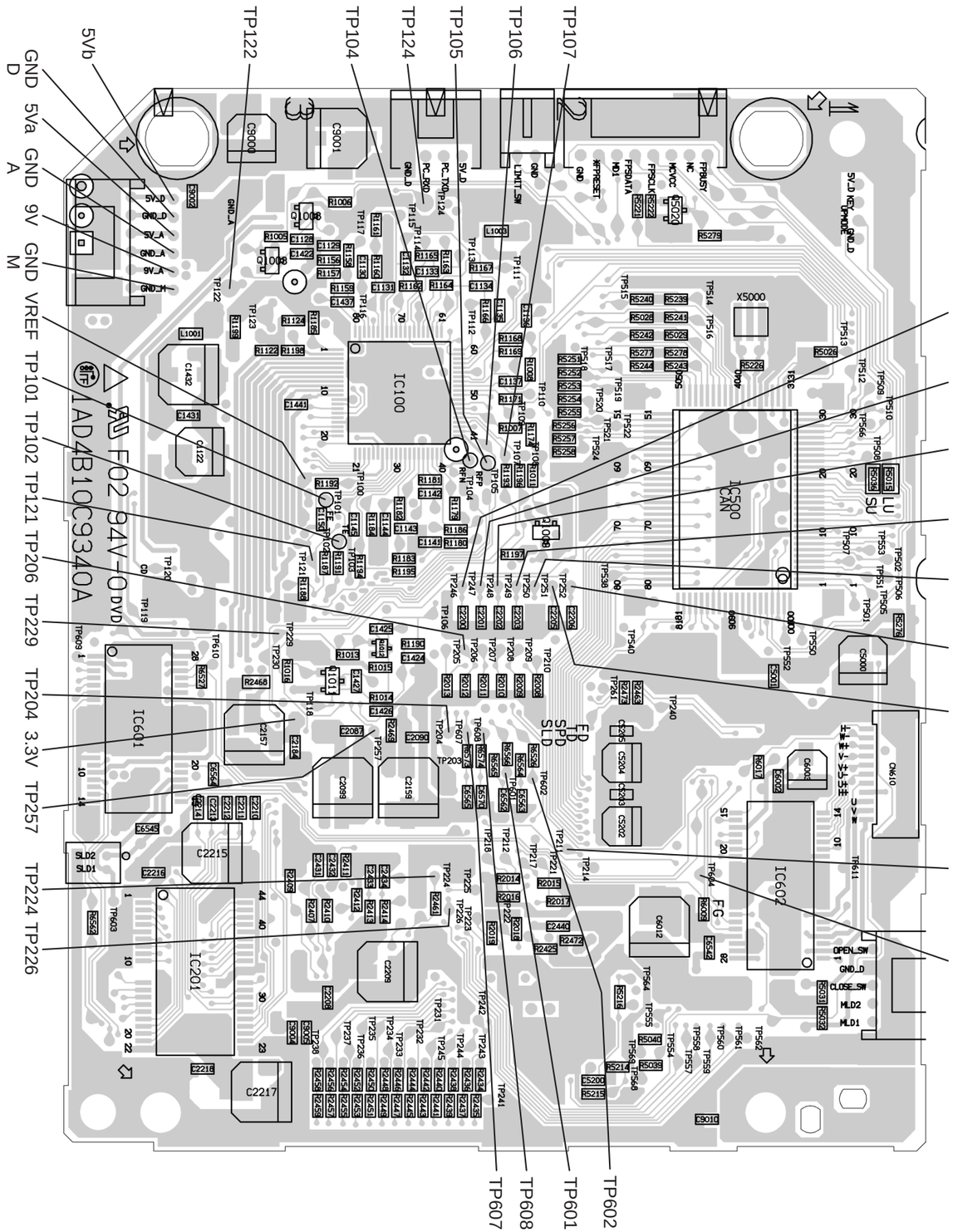
DVD P.W.BOARD OPERATION(SCHEMATIC DIAGRAM FOR SIGNAL CHECK)

(This is a basic signal check)



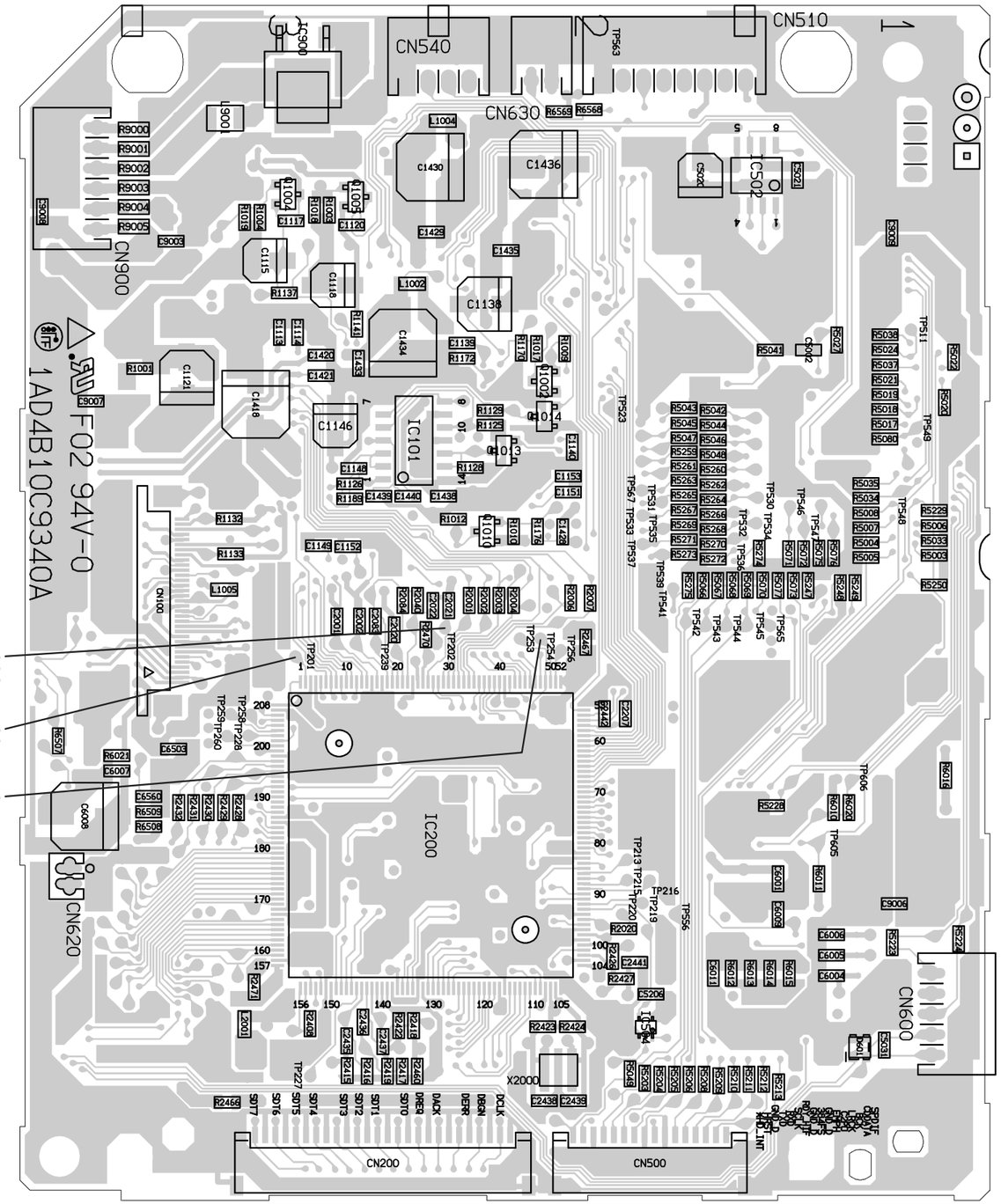
DVD P.W.BOARD OPERATION(WIRING DIAGRAM FOR SIGNAL CHECK)

A. A side (This is a basic signal check)



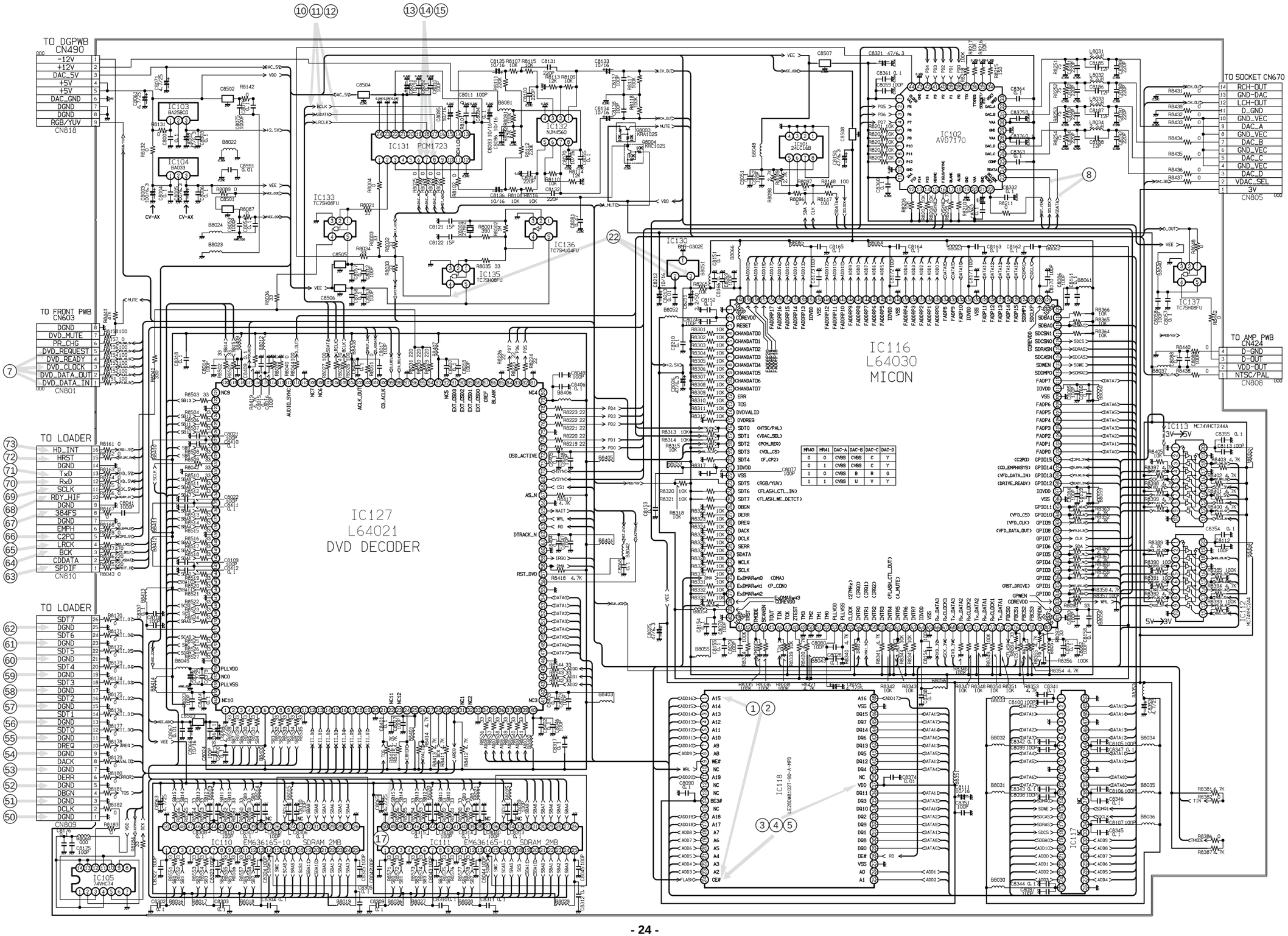
DVD P.W.BOARD OPERATION(WIRING DIAGRAM FOR SIGNAL CHECK)

B. B side (This is a basic signal check)



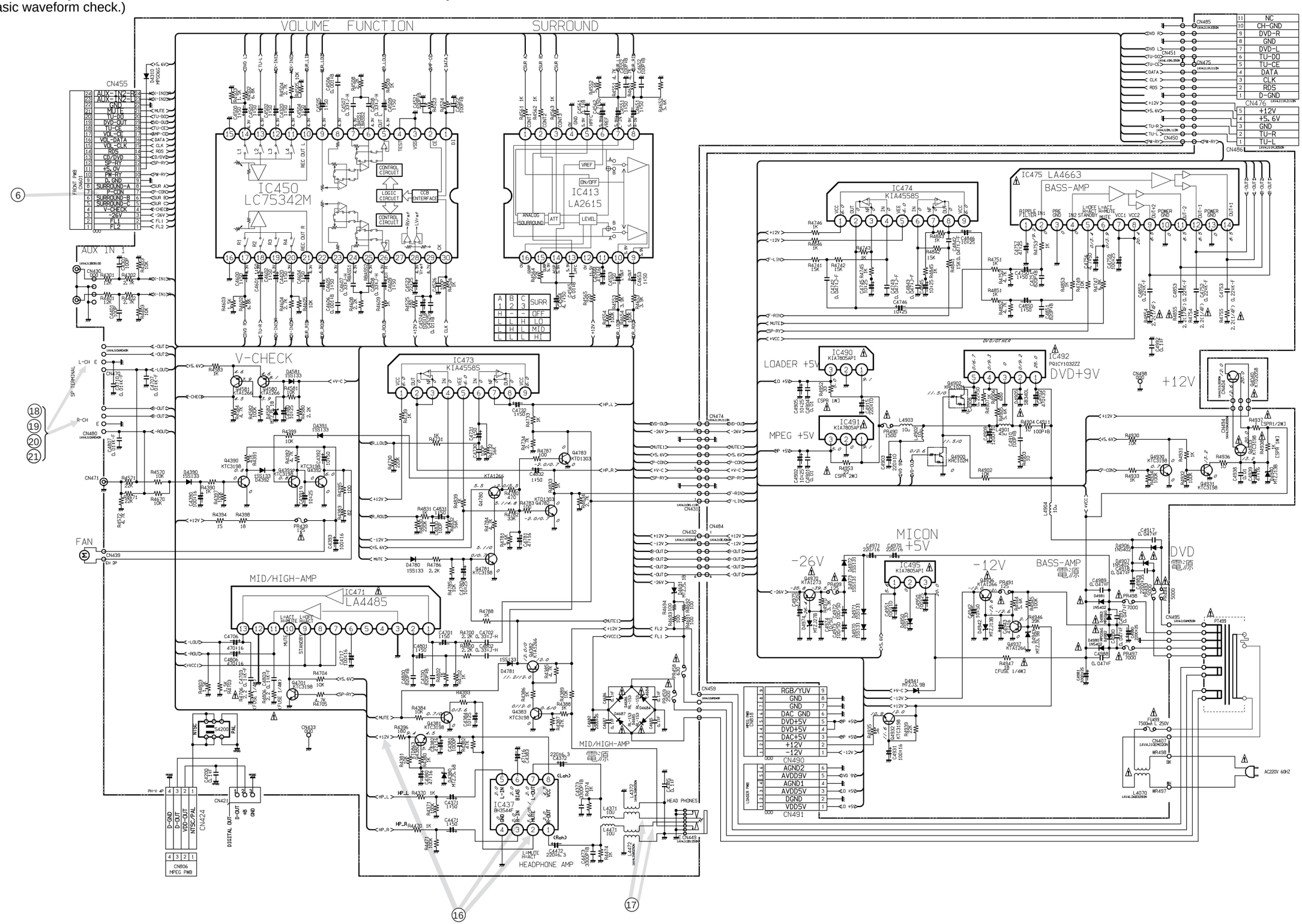
MPEG P.W.BOARD(SCHEMATIC DIAGRAM FOR WAVEFORM CHECK)

(This is a basic waveform check.)



AMP P.W.BOARD (SCHEMATIC DIAGRAM FOR WAVEFORM CHECK)

(This is a basic waveform check.)



CN455	
24	AUX-IN2-R
23	AUX-IN2-L
22	GND
21	MUTE
20	TU-DO
19	DVD-OUT
18	TU-CE
17	VOL-CE
16	VOL-DATA
15	VOL-CLK
14	RDS
13	CD/DVD
12	SP-RY
11	+5.0V
10	PW-RY
9	P.GND
8	SURROUND-A
7	P-CON
6	SURROUND-B
5	SURROUND-C
4	V-CHECK
3	-26V
2	FL1
1	FL2

CN485	
11	NC
10	CH-GND
9	DVD-R
8	GND
7	DVD-L
6	TU-DO
5	TU-CE
4	DATA
3	CLK
2	RDS
1	D-GND

CN476	
5	+12V
4	+5.6V
3	GND
2	TU-R
1	TU-L

CN490	
9	RGB/YUV
8	GND
7	GND
6	DAC GND
5	DVD+5V
4	DVD+5V
3	DAC+5V
2	+12V
1	-12V

CN491	
6	AGND2
5	AVDD9V
4	AGND1
3	AVDD5V
2	DGND
1	VDD5V

A	B	C	SURR
H	-	-	OFF
L	H	H	LO
L	H	L	MID
L	L	L	HI

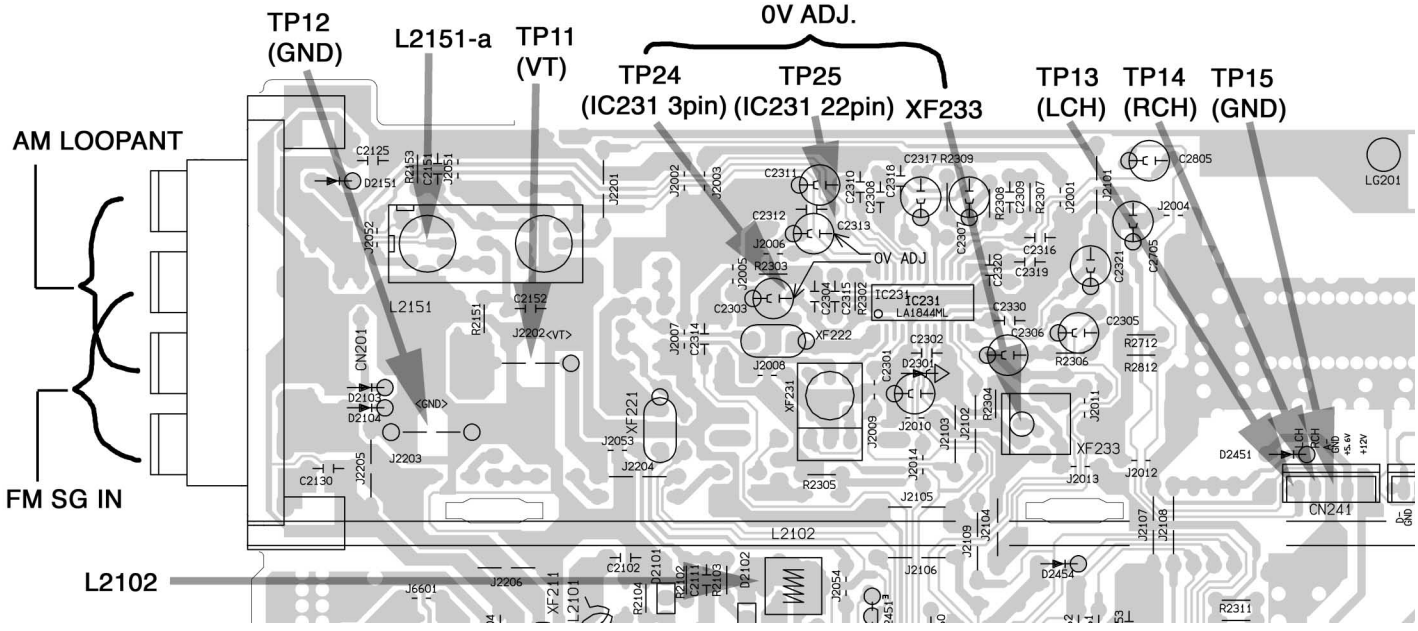
TUNER ADJUSTMENTS

- Use a plastic screw driver for adjustments.
- MODE : STEREO
- Speaker impedance : 4 ohm
- TUNING

  FM : 87.5 - 108.0MHz (50kHz step)

  AM : 522 - 1710kHz (9kHz step)

  520 - 1710kHz (10kHz step)



SG RF Level : 75 open Voltage dBµV

Antenna : 75 unbalanced Direct, Modulation : 1 kHz

Dev. : ±22.5kHz(MONO) ±22.5kHz(STEREO) ±6.75kHz(PILOT)

Output Level : about 100mV at TP13,TP14,TP15

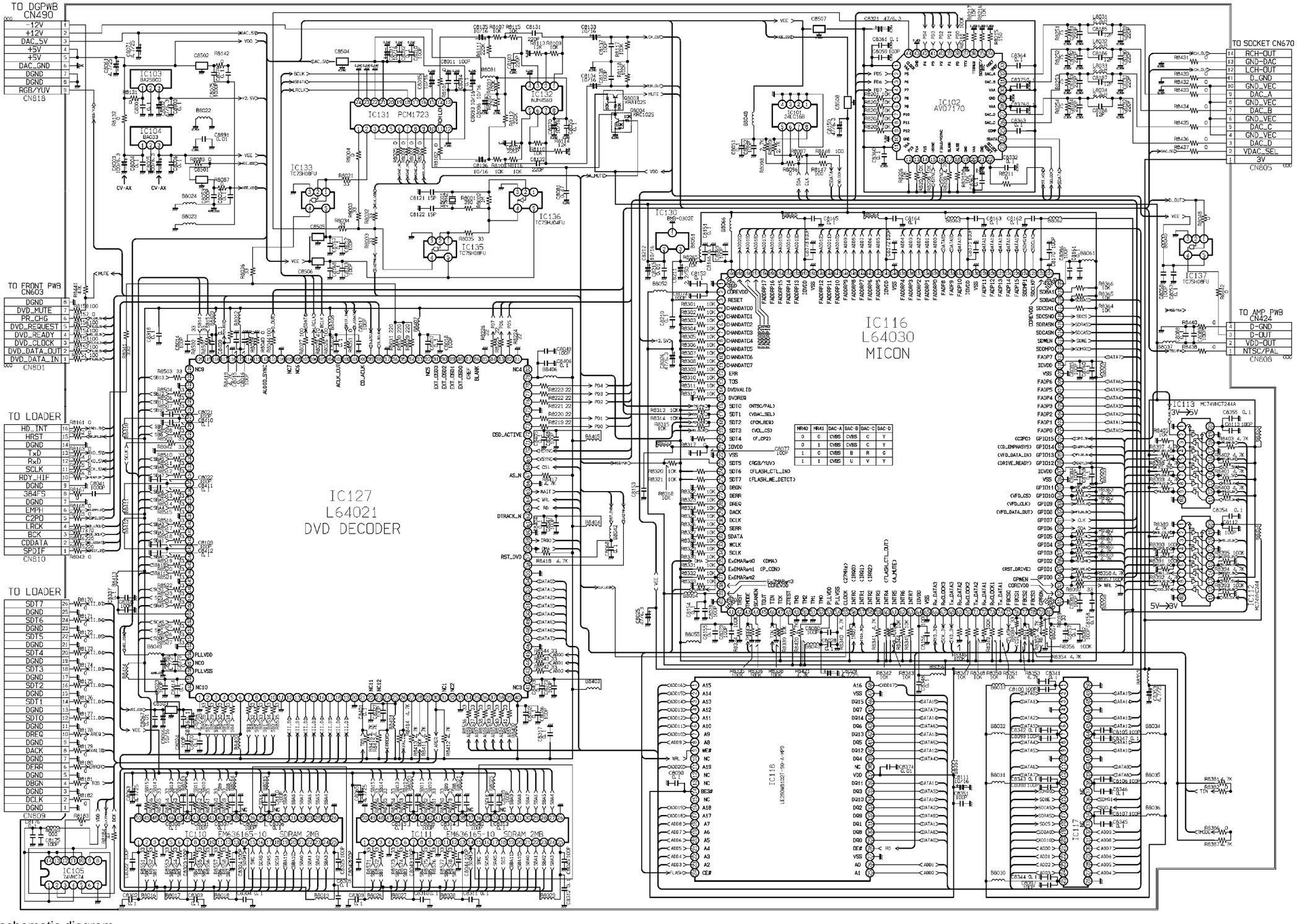
1.FM

Step	Adjusting Circuit	Connection		SG Frequency	Set Position	Adjustment	Remark
		Input	Output				
1	IF Alignment	FM ANT. SG=66dBµV	IC231 3,22pin TP24, TP25	98.0MHz	---	XF233	0.0 +/- 0.05V
2	Cover voltage	---	Connect Digital DC voltmeter to TP11(H), TP12(E).	87.5 MHZ	Low	L2102	1.1 +/- 0.1V
		---		108.0 MHZ	High	---	less than 9.0V
3	Tracking	Connect FM SG to FM Antenna (SG=8dBµV)	Connect to VTVM TP13(L) or TP14(R), TP15(E)	90.0 MHZ	Low	L2101	Max.
				106.0 MHZ	High	---	

2.AM

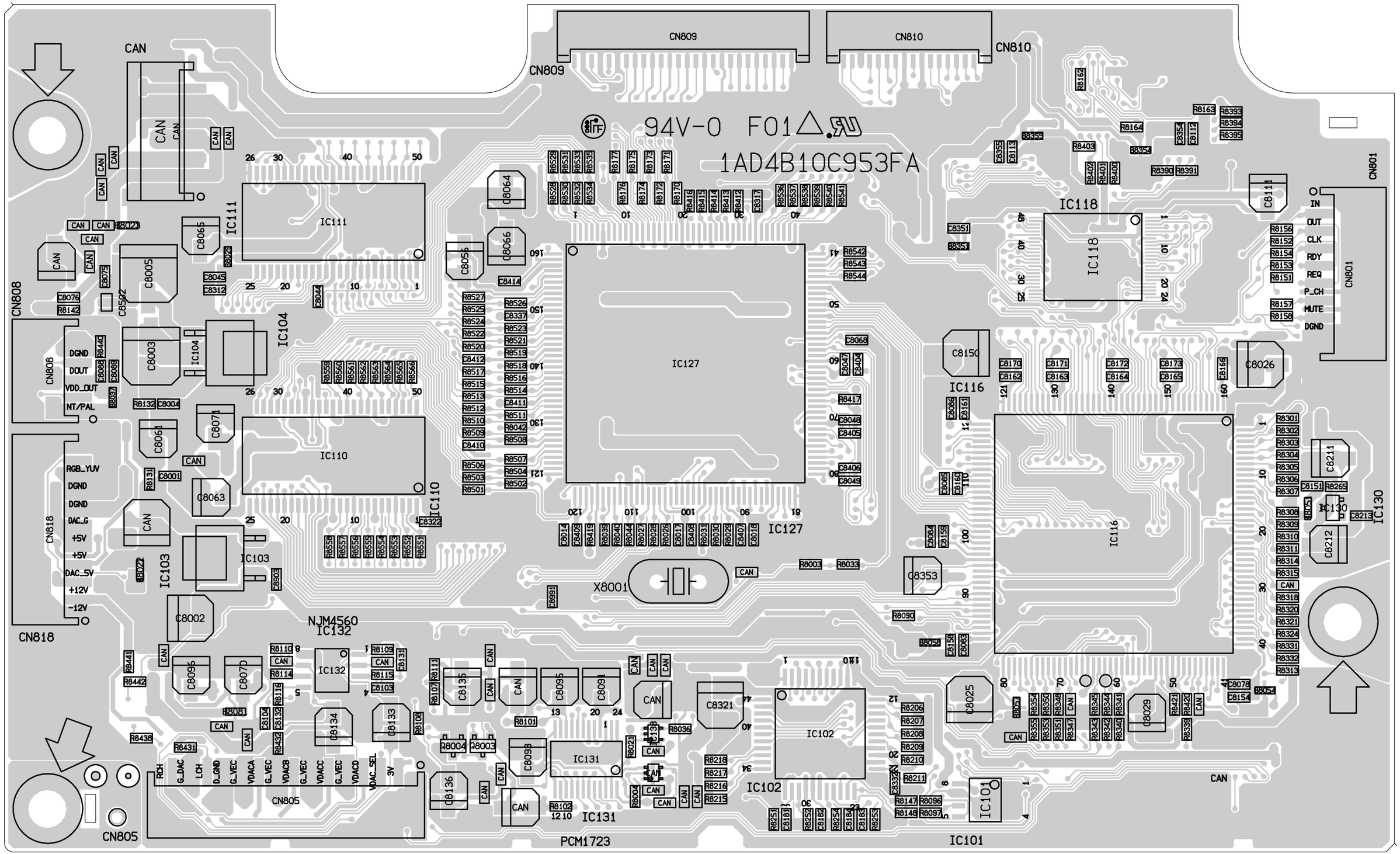
Step	Adjusting Circuit	Connection		SG Frequency	Set Position	Adjustment	Remark
		Input	Output				
1	Cover voltage	---	Connect Digital DC voltmeter to TP11(H), TP12(E).	522 kHZ	Low	---	more than 0.8V
		---		1710 kHZ	High	---	less than 9.0V
2	Tracking	Connect AM SG to Test loop Ant.(SG=80dBµV)	Connect to VTVM TP13(L) or TP214(R), TP15(E).	603 kHZ	Low	L2151-a	Max.
				1404 kHZ	High	---	

SCHEMATIC DIAGRAM(MPEG)

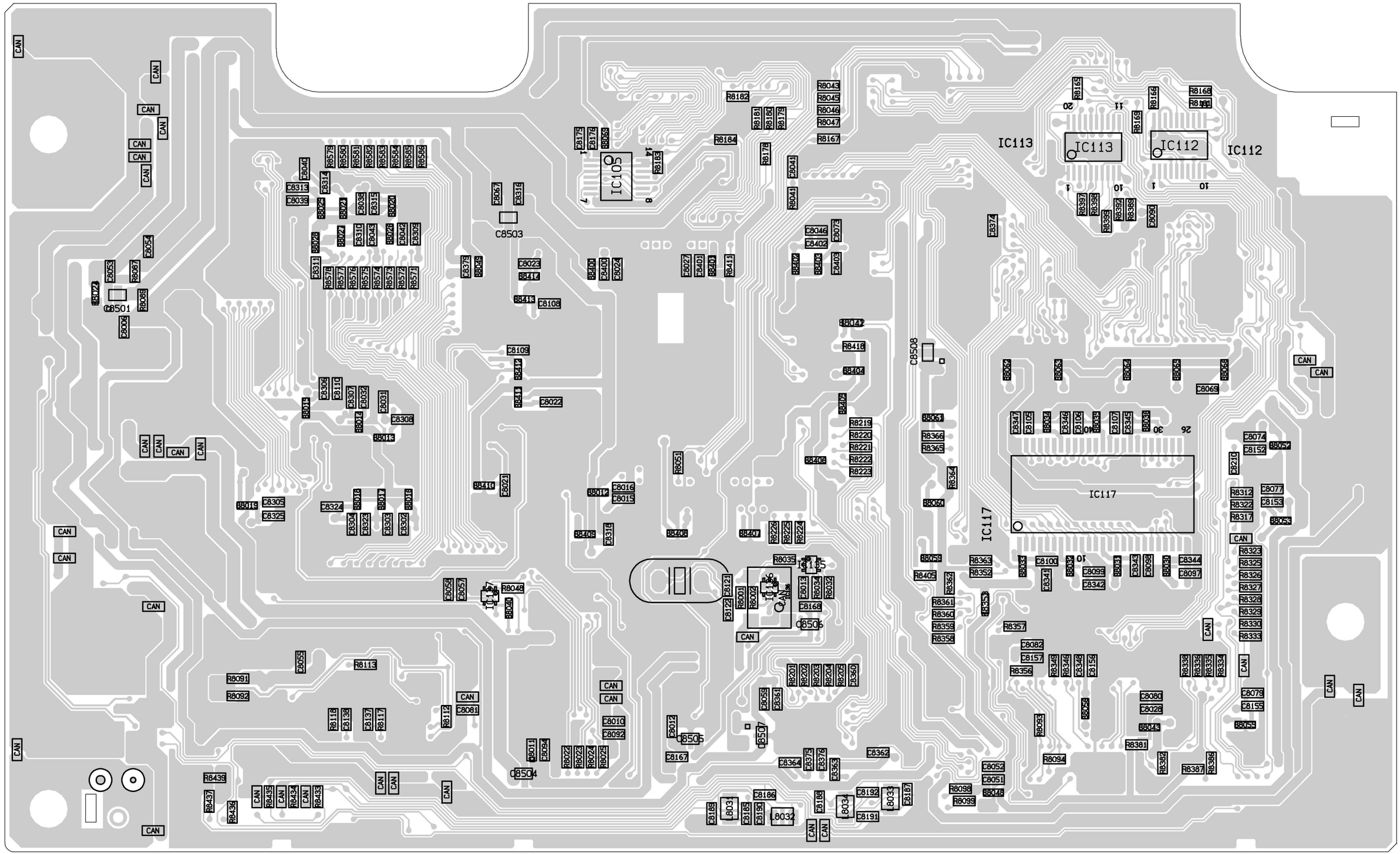


This is a basic schematic diagram.

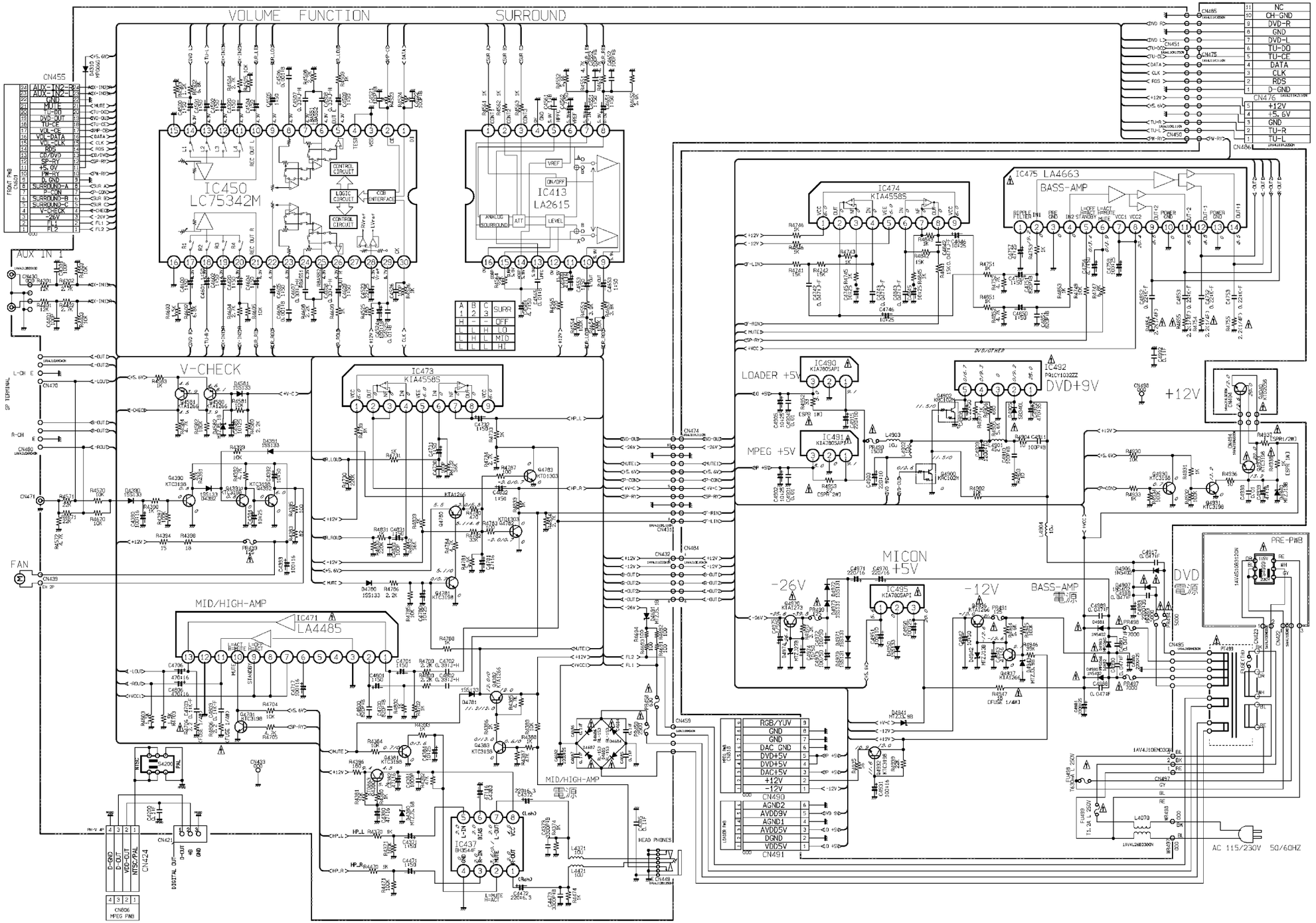
WIRING DIAGRAM (MPEG A SIDE)



WIRING DIAGRAM (MPEG B SIDE)



SCHEMATIC DIAGRAM(AMP for SS)

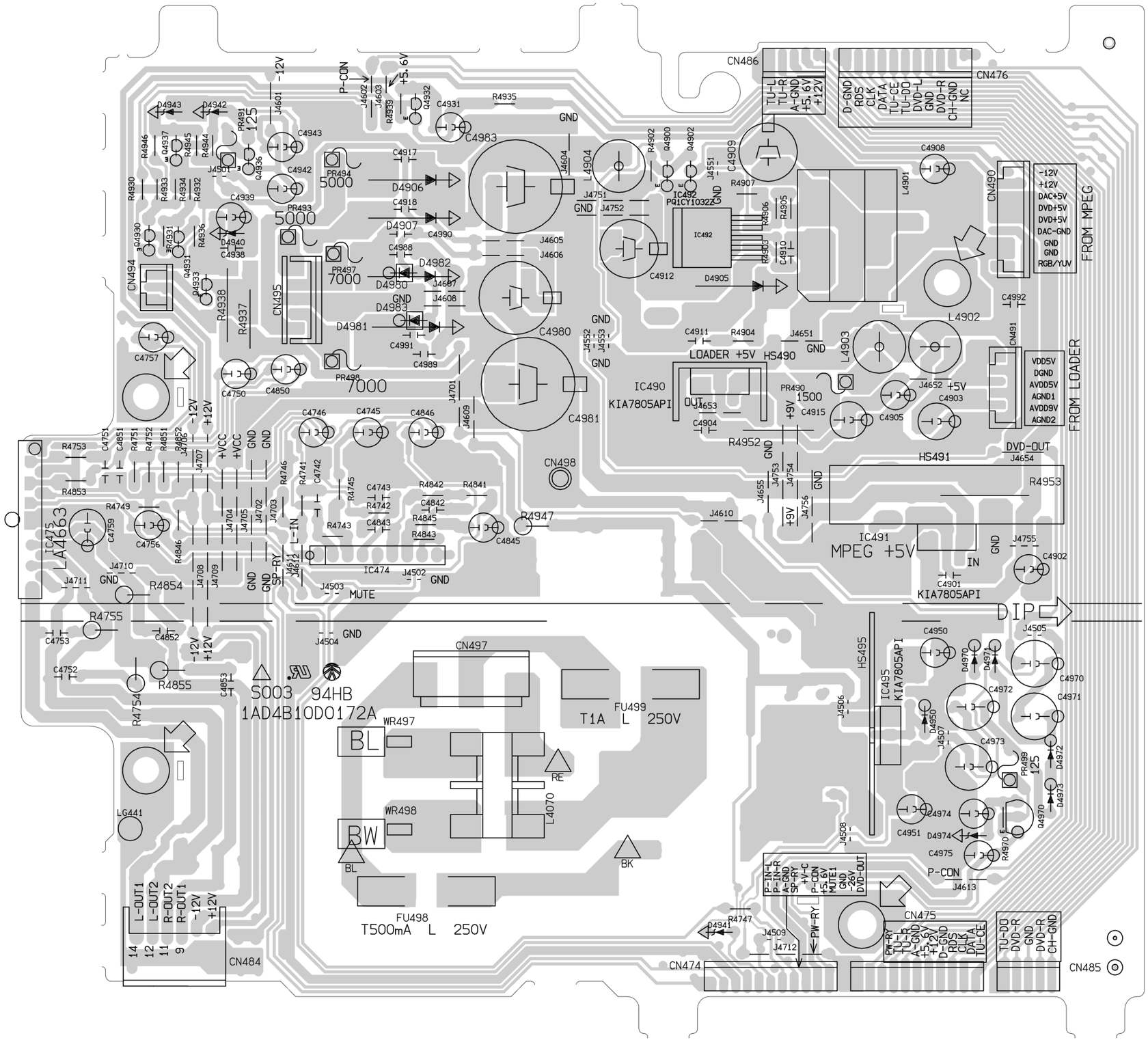


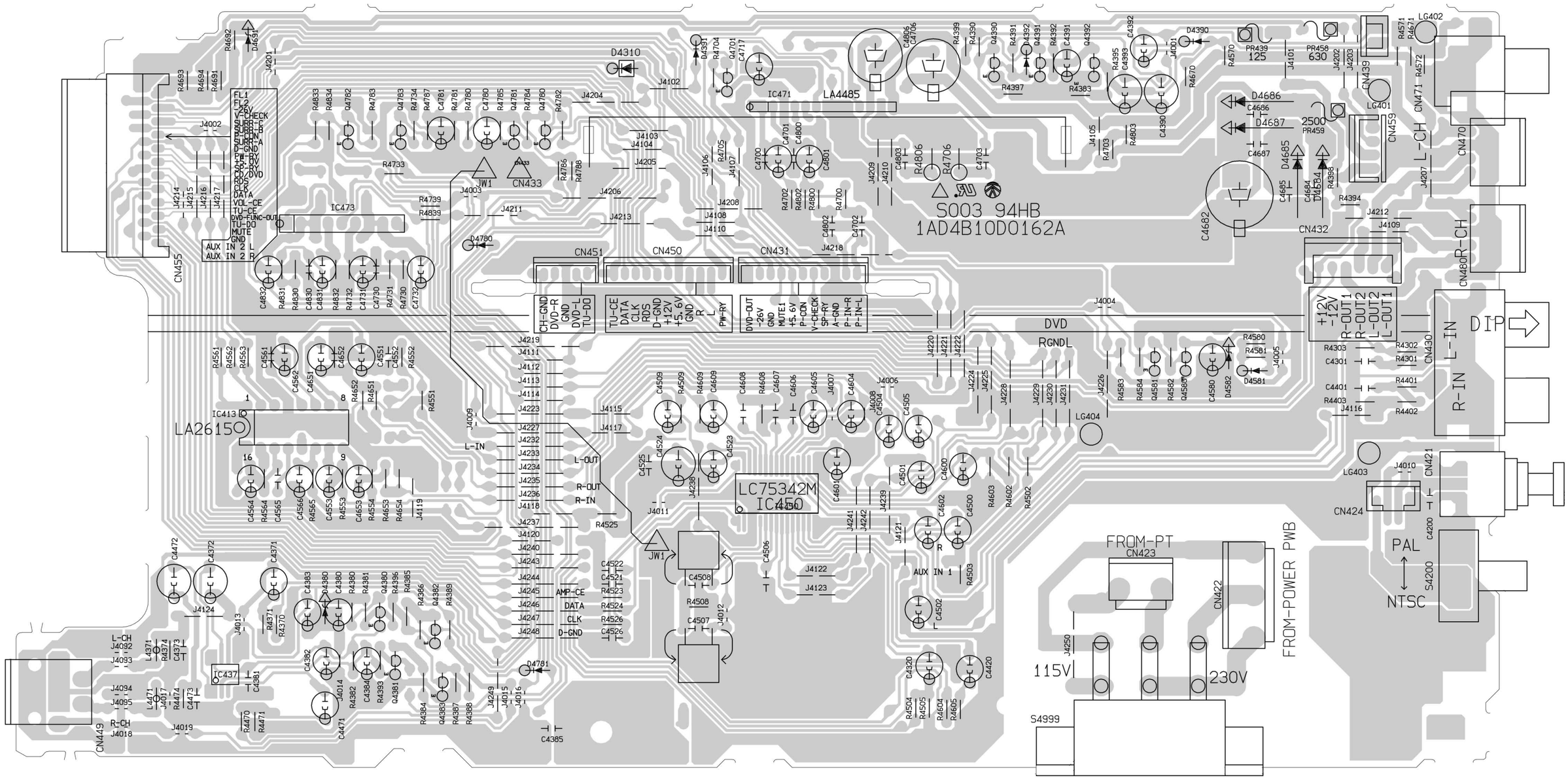
This is a basic schematic diagram.

PRODUCT SAFETY NOTICE

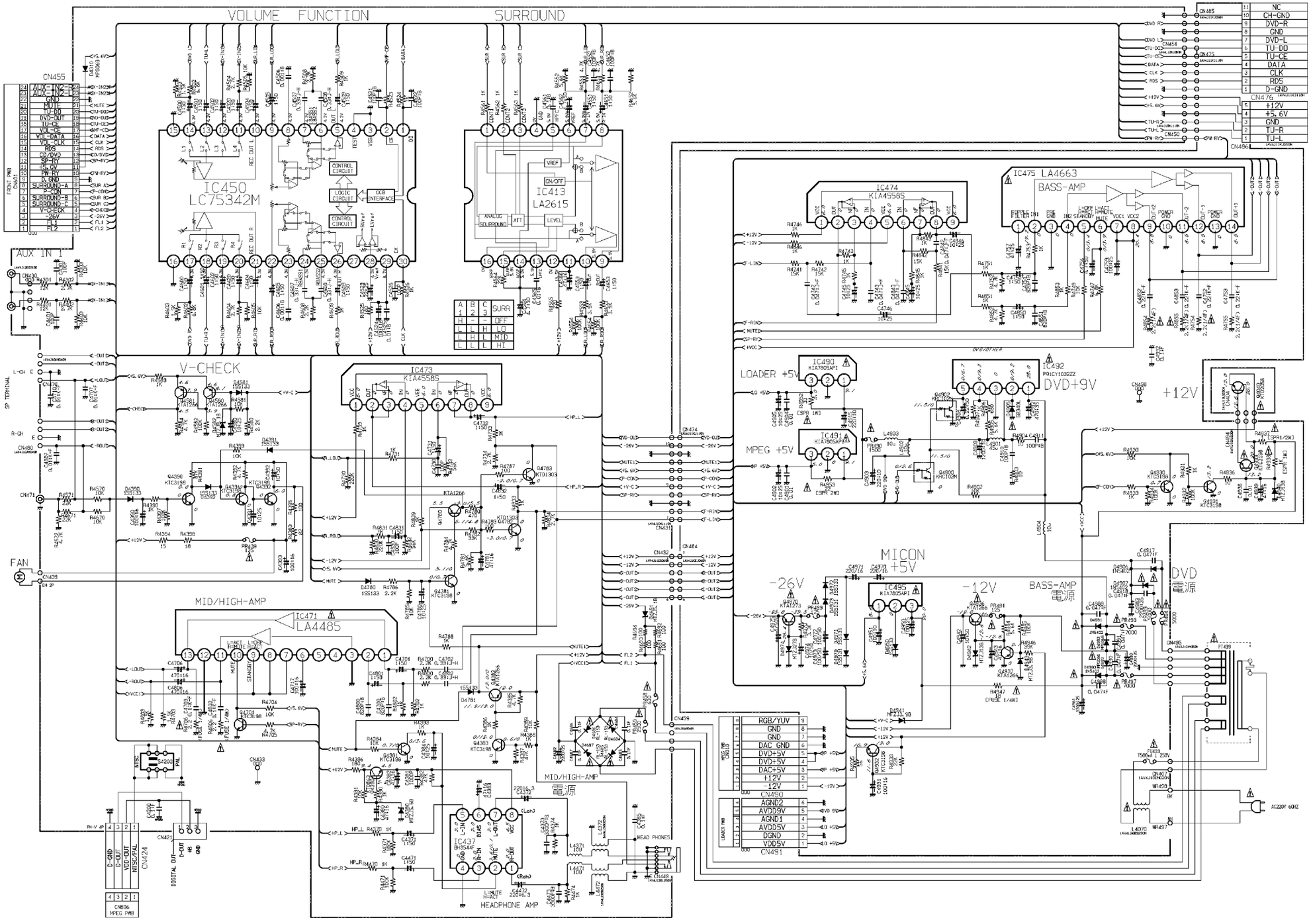
Each precaution in this manual should be followed during servicing. Components identified with the IEC symbol ⚠ in the parts list and the schematic diagram designated components in which safety can be of special significance. When replacing a component identified by ⚠ , use only the replacement parts designated, or parts with the same ratings of resistance, wattage or voltage that are designated in the parts list in this manual. Leakage-current or resistance measurements must be made to determine that exposed parts are acceptably insulated from the supply circuit before returning the product to the customer.

WIRING DIAGRAM (POWER AMP for SS)


CN486
TU-L
TU-R
A-GND
+5.6V
+12V
CN476
D-GND
RDS
CLK
DATA
TU-CE
TU-DO
DVD-L
GND
DVD-R
CH-GND
NC
FROM MPEG
-12V
+12V
DAC+5V
DVD+5V
DVD+5V
DAC-GND
GND
GND
RGB/YUV
CN490
FROM LOADER
VDD5V
DGND
AVDD5V
AGND1
AVDD9V
AGND2
CN491
DVD-OUT
J4654
P-CON
J4613
DIP
J4505
CN497
S003 94HB
1AD4B10D0172A
FU499
T1A L 250V
FU498
T500mA L 250V
WR497
WR498
BL
BW
RE
BK
L4070
LG441
CN484
L-OUT1
L-OUT2
R-OUT2
R-OUT1
-12V
+12V
14
12
11
9
CN498
CN494
CN495
CN475
PW-RY
TU-L
TU-R
A-GND
+5.6V
+12V
D-GND
RDS
CLK
DATA
TU-CE
CN474
CN485
TU-DO
DVD-R
GND
DVD-R
CH-GND
IC475
LA4663
IC474
IC490
KIA7805API
IC491
MPEG +5V
IC492
PQ1CY1032Z
IC495
KIA7805API
HS491
HS495
LOADER +5V
HS490
P-CON
-12V
+12V
+VCC
+VCC
GND
GND
L-IN
SP-RY
MUTE
GND
GND
GND


S003 94HB
1AD4B10D0162A
LA4485
IC471
LA2615
IC413
LC75342M
IC450
IC473
IC437
CN455
CN451
CN450
CN431
CN433
CN432
CN480
CN471
CN459
CN470
CN430
CN421
CN424
CN422
CN423
CN449
FROM-PT
FROM-POWER PWB
DVD
RGNDL
L-IN
R-IN
L-CH
R-CH
L-OUT
R-OUT
DIP
PAL
NTSC
115V
230V
S4999
AUX IN 1
AUX IN 2 L
AUX IN 2 R
JW1
LG401
LG402
LG403
LG404
PR439 125
PR458 630
2500 PR459
D4686
D4687
D4685
D4684
D4310
D4780
D4781
D4581
D4582
D4390
+12V
-12V
R-OUT1
R-OUT2
L-OUT2
L-OUT1
CH-GND
DVD-R
GND
DVD-L
TU-DO
TU-CE
DATA
CLK
RDS
D-GND
+12V
+5.6V
GND
R
L
PW-RY
DVD-OUT
-26V
GND
MUTE1
+5.6V
P-CON
V-CHECK
SP-RY
A-GND
P-IN-R
P-IN-L
AMP-CE
DATA
CLK
D-GND
FL1
FL2
VCR
V-CHECK
SUB5V
SUB9V
SUB-A
D-GND
TU-+12V
VCR-5V
VCR-9V
VCR-DVD
VCR-R
DATA
VOL-CE
TU-CE
DVD-FUNC-OUT
TU-DO
MUTE
GND

SCHEMATIC DIAGRAM(AMP for KR)

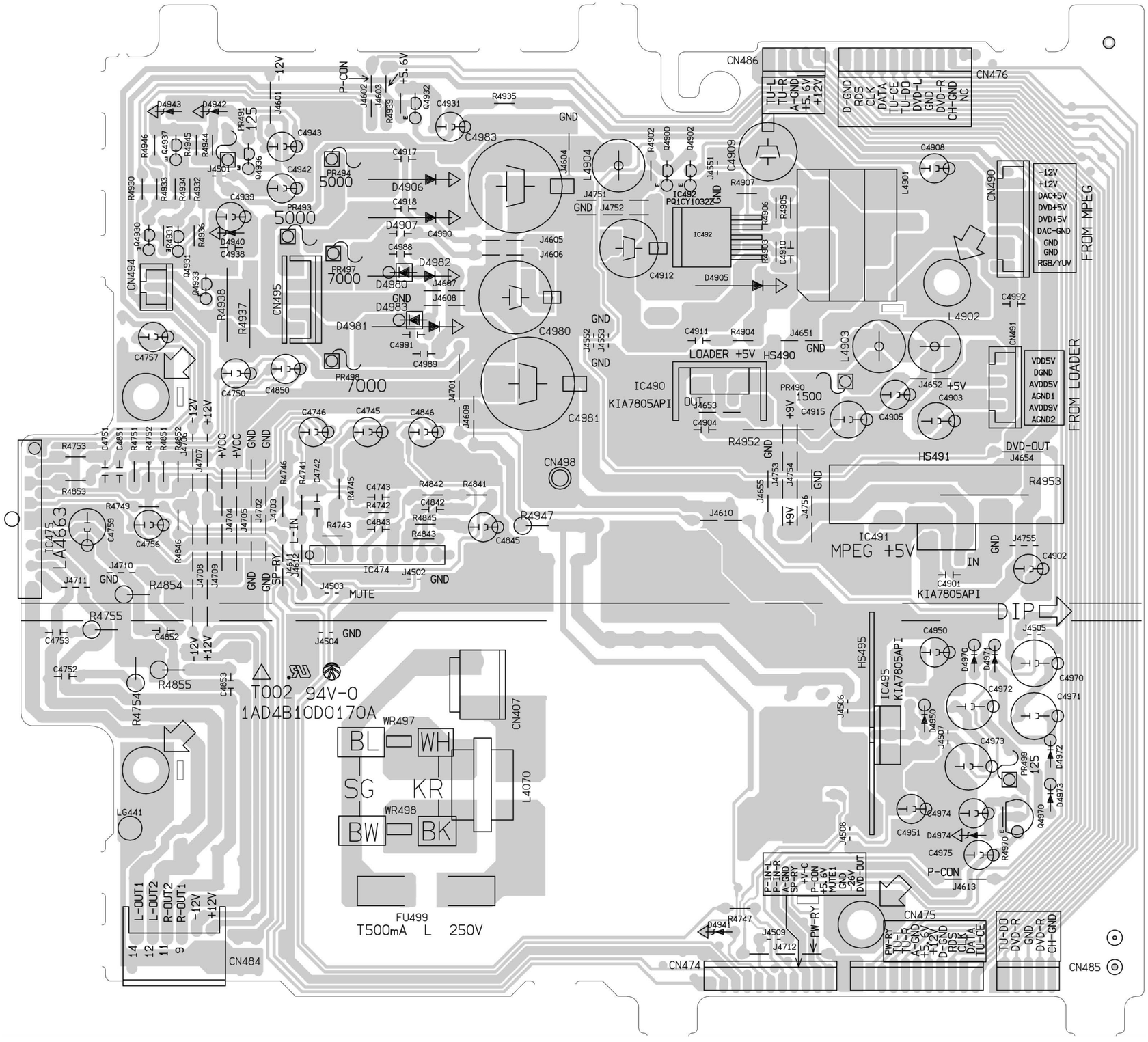


This is a basic schematic diagram.

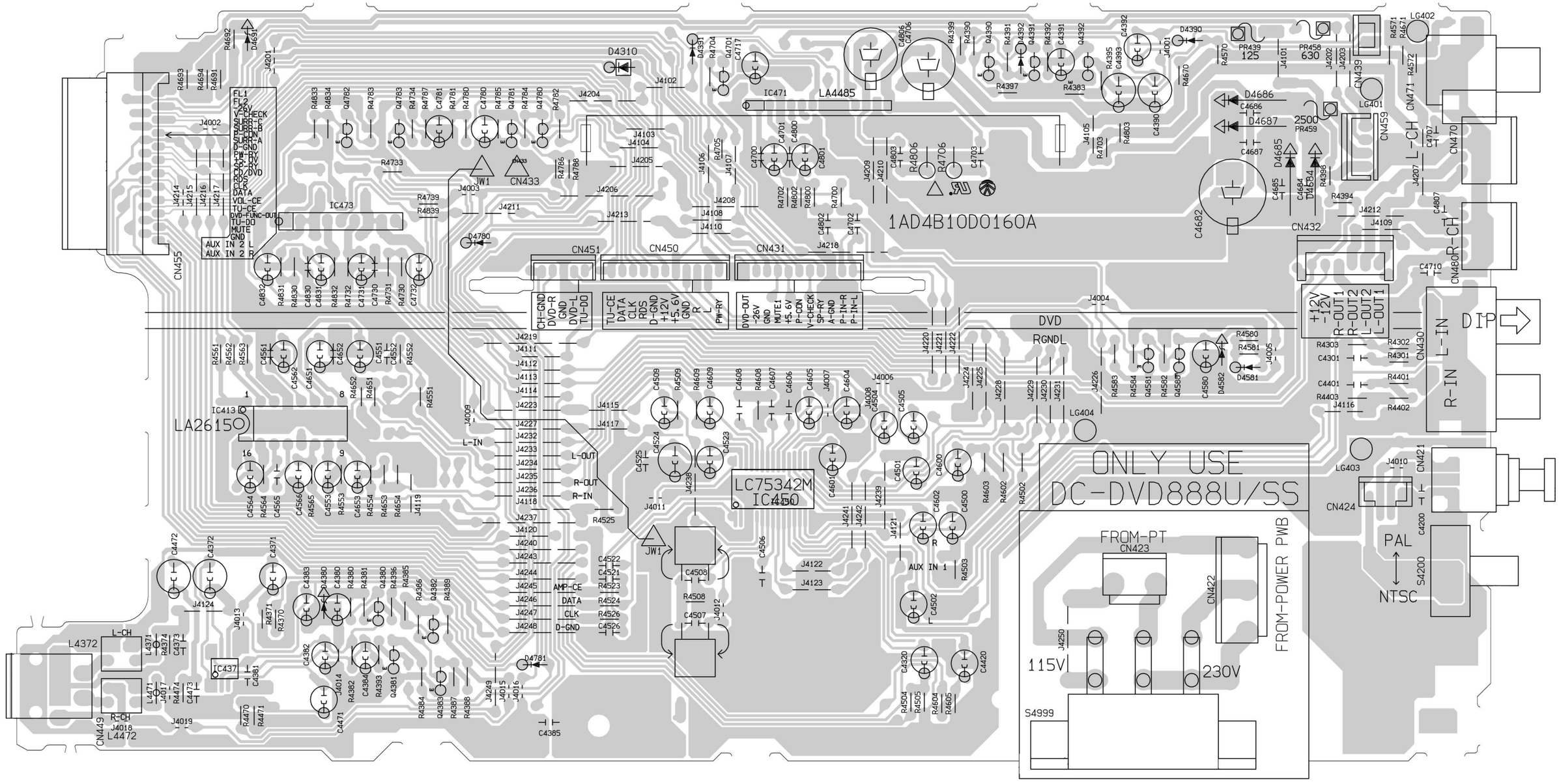
PRODUCT SAFETY NOTICE

Each precaution in this manual should be followed during servicing. Components identified with the IEC symbol ⚠ in the parts list and the schematic diagram designated components in which safety can be of special significance. When replacing a component identified by ⚠ , use only the replacement parts designated, or parts with the same ratings of resistance, wattage or voltage that are designated in the parts list in this manual. Leakage-current or resistance measurements must be made to determine that exposed parts are acceptably insulated from the supply circuit before returning the product to the customer.

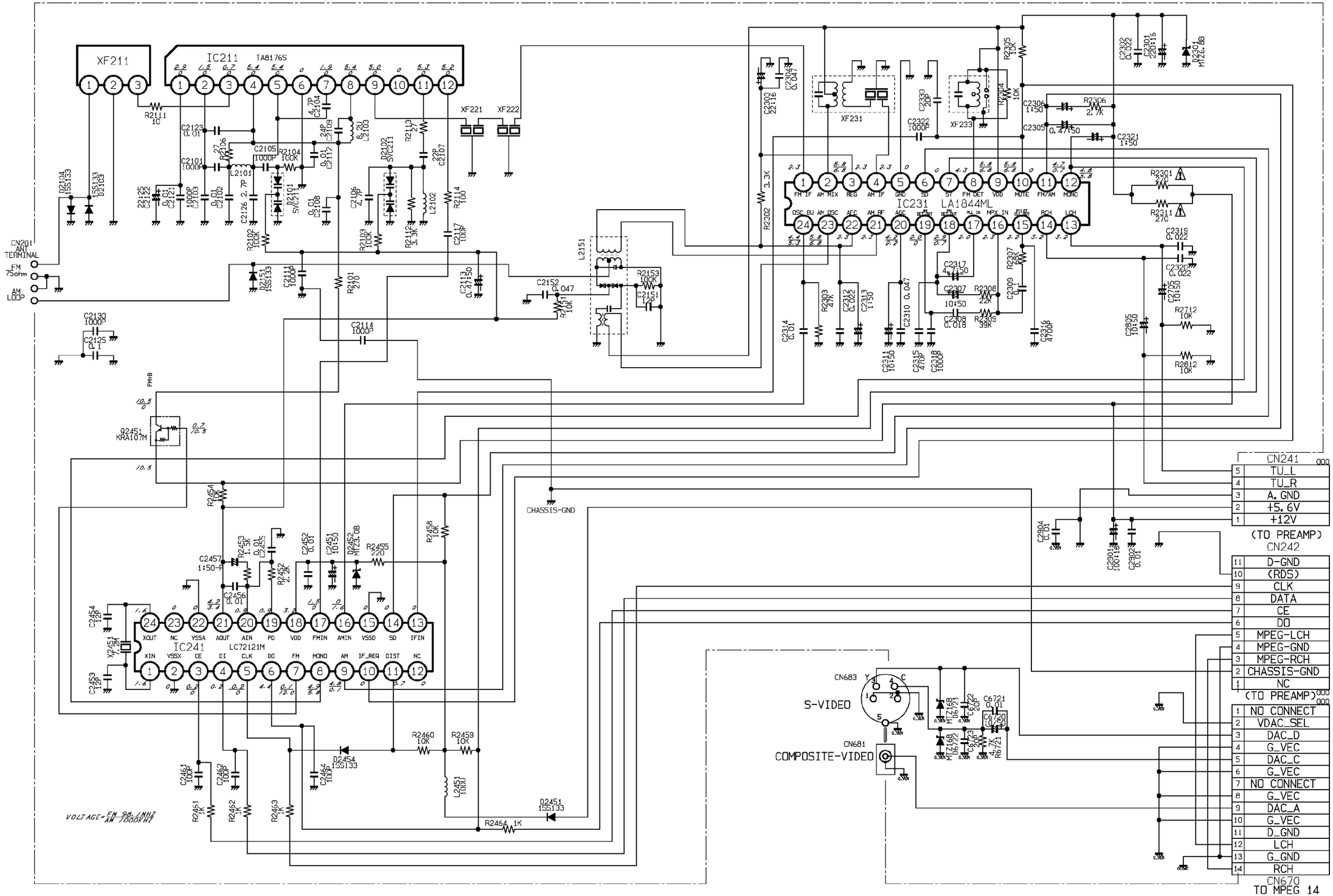
WIRING DIAGRAM (POWER AMP for KR)



WIRING DIAGRAM (PRE-AMP for KR)

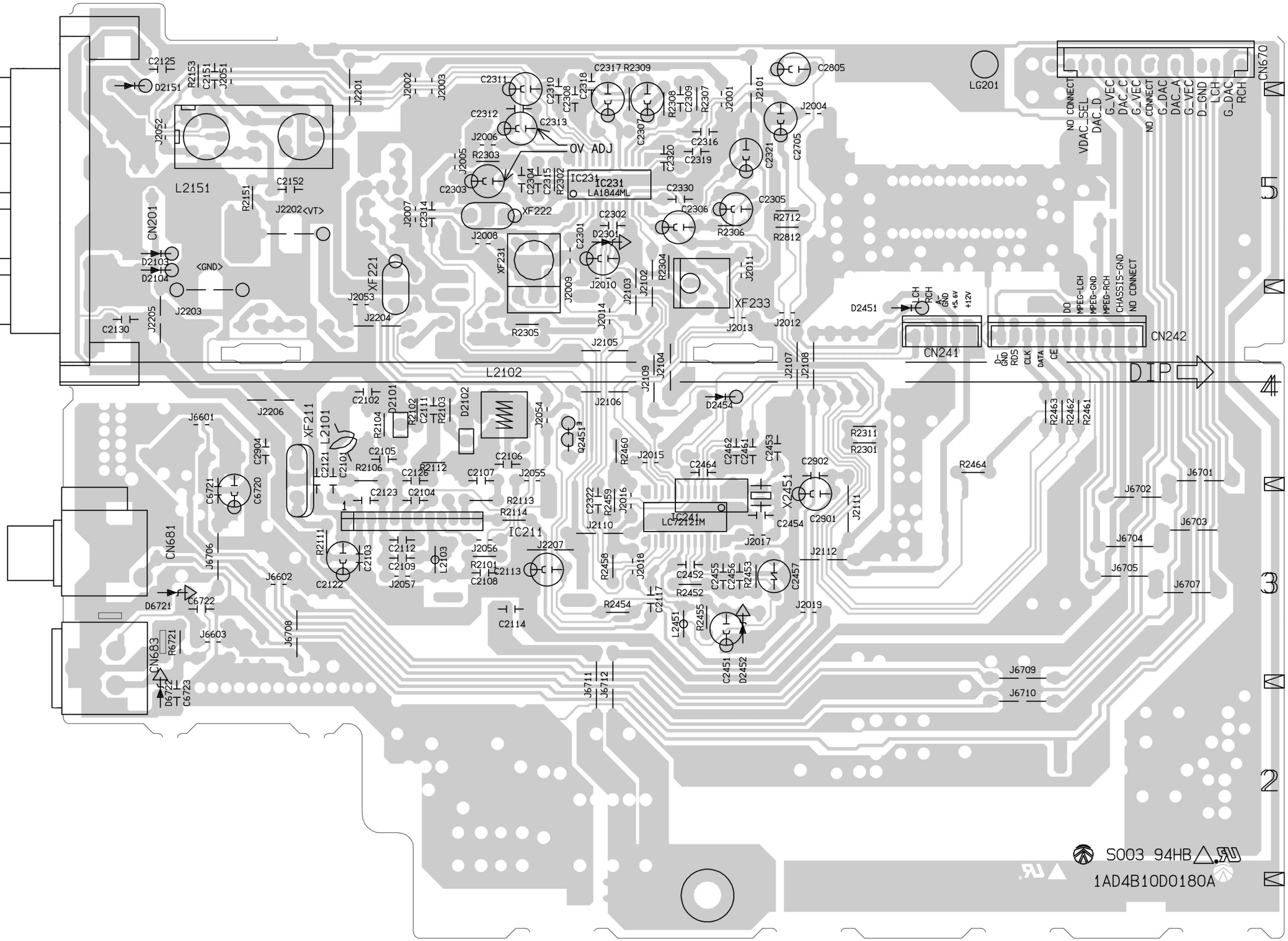


SCHEMATIC DIAGRAM(TUNER)

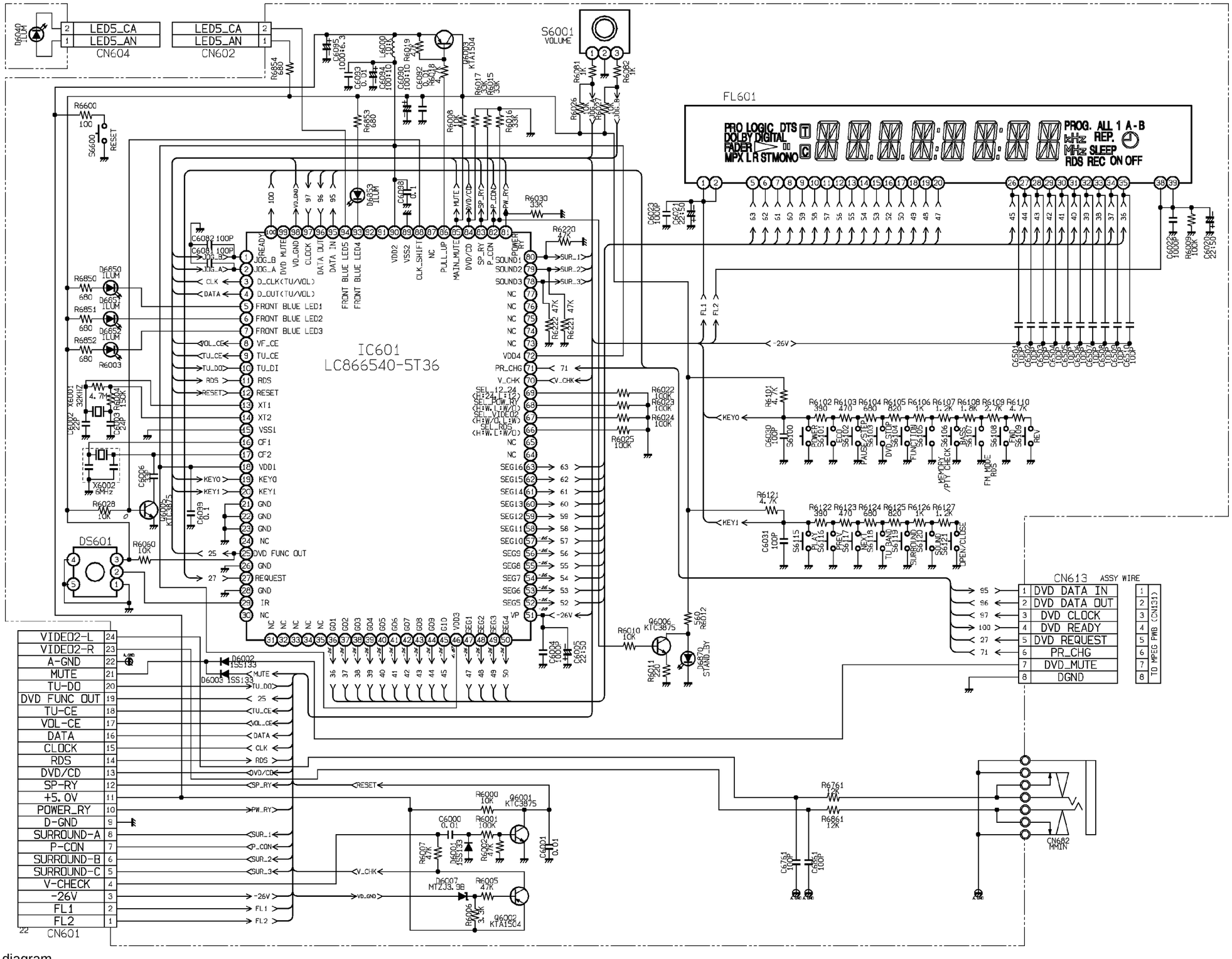


This is a basic schematic diagram.

WIRING DIAGRAM (TUNER)

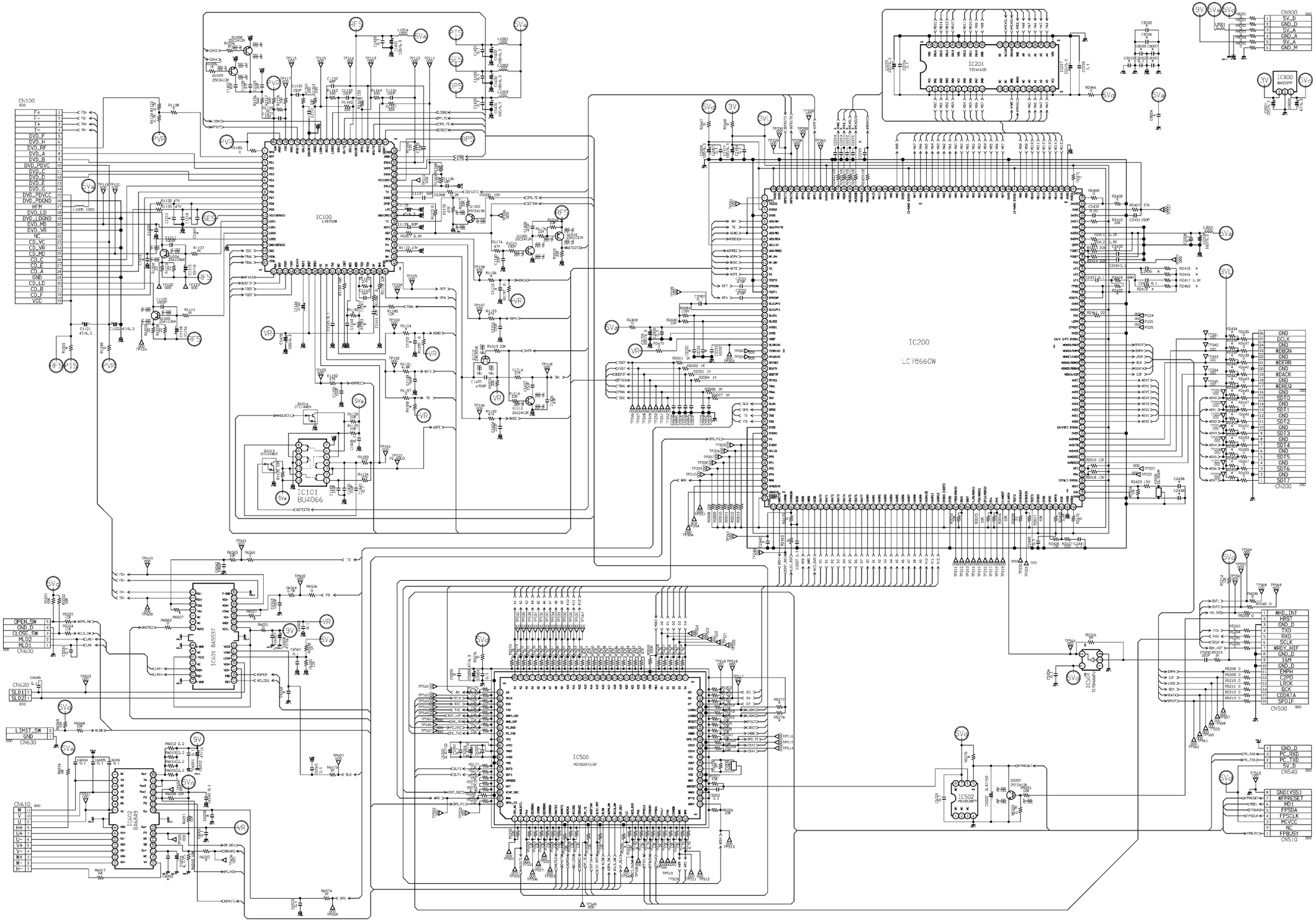


SCHEMATIC DIAGRAM(FRONT)



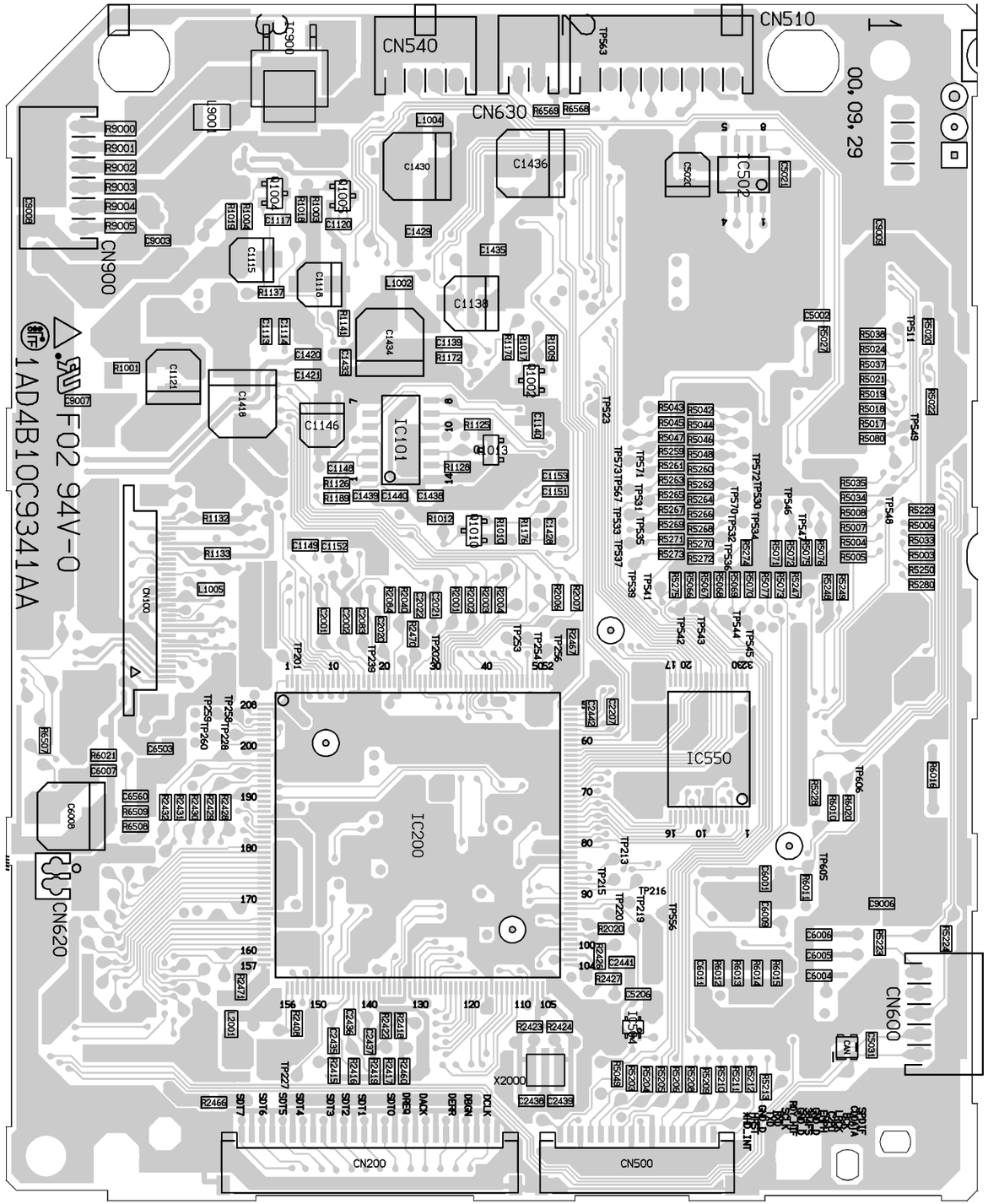
This is a basic schematic diagram.

SCHEMATIC DIAGRAM(DVD)

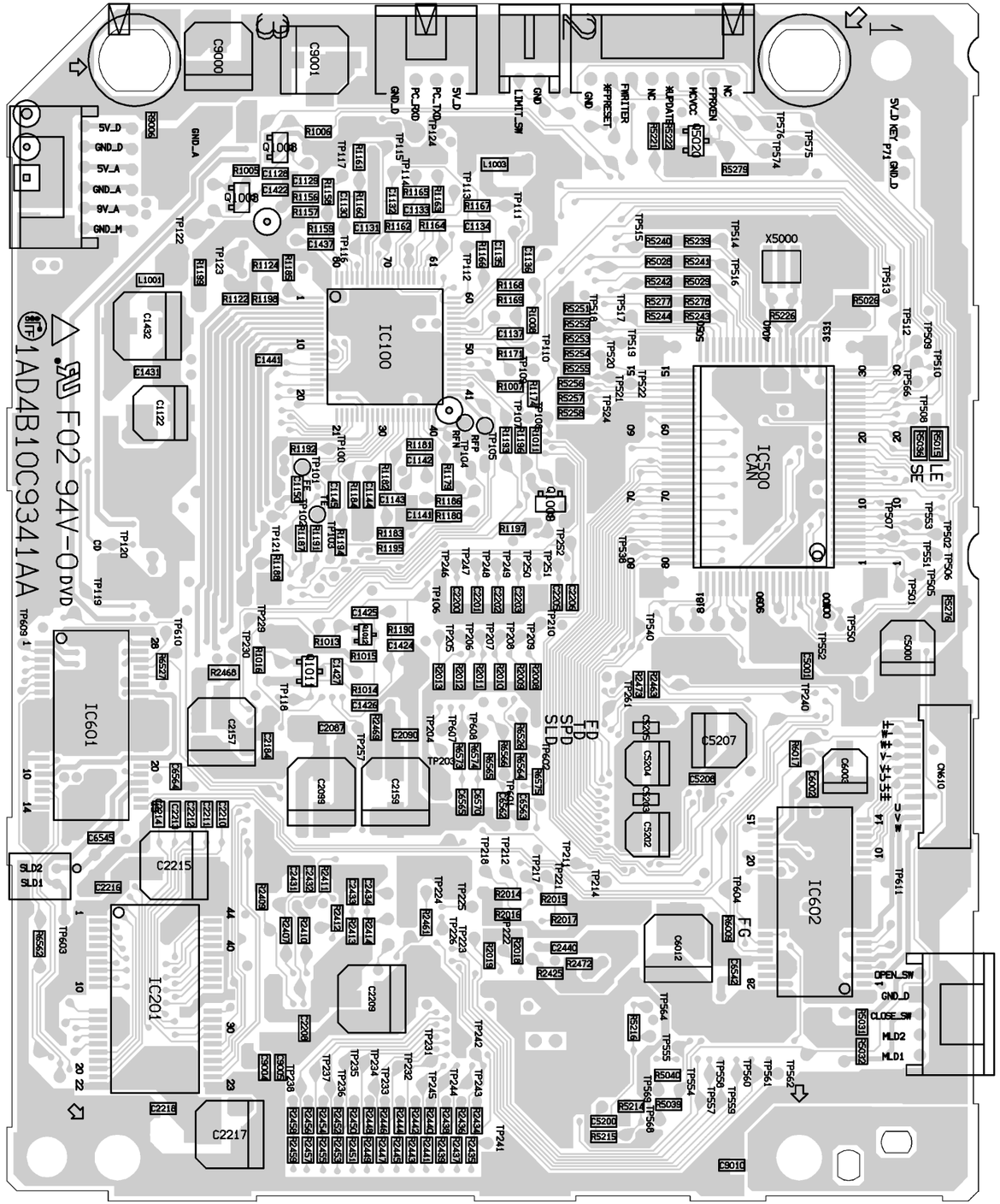


This is a basic schematic diagram.

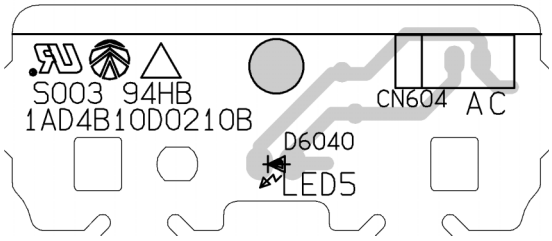
WIRING DIAGRAM (DVD A SIDE)



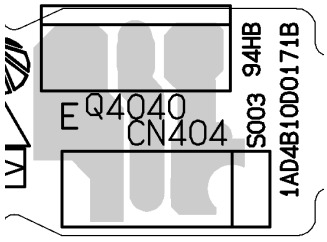
WIRING DIAGRAM (DVD B SIDE)



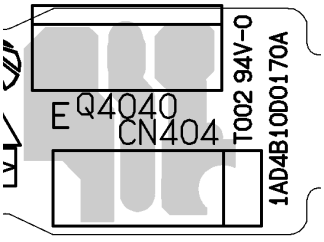
WIRING DIAGRAM (LED,VOL-REG for SS,REG for KR,MECHA-SW and MECHA-M)



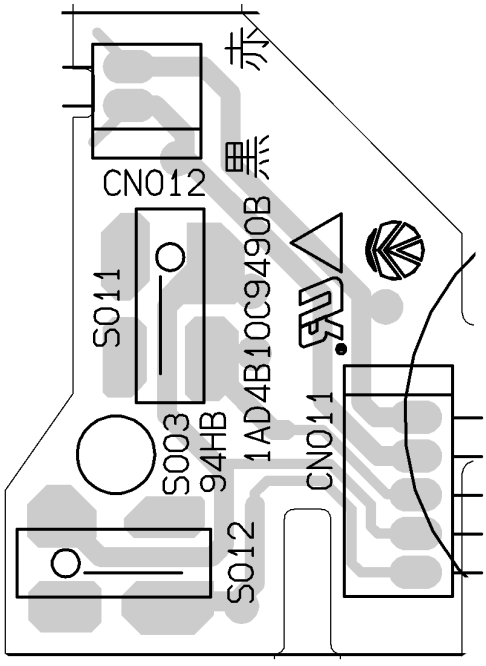
LED



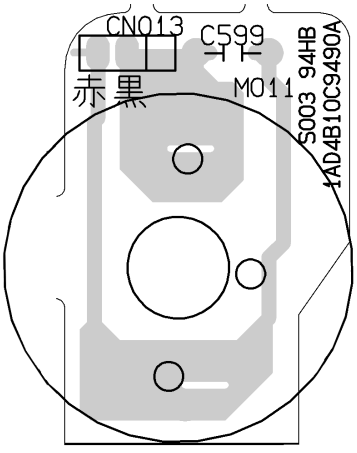
VOL-REG(SS)



REG(KR)



MECHA-SW



MECHA-M